### UNIVERSITY OF KENTUCKY

### Proposed Projects Involving the State General Fund (cash or bonds)\*

## Priority Project Title / Description

**Total Budget** 

#### 2006-2008

# 1 Construct Biological/Pharmaceutical Cmplx- Ph II

\$79,892,000

Phase I of the Biological/Pharmaceutical Complex, authorized by the 2005 General Assembly, will construct a shelled building at UK's Research Complex. Phase II will complete the 242,000 gross square foot facility. This new building will provide the College with a state-of-the-art research facility that also will allow the College to expand enrollment to address the shortage of pharmacists in Kentucky. The College of Pharmacy will relocate to this new facility and vacate their existing space. In addition to the current Pharmacy building, College faculty members are housed in 10 buildings on and off campus. Consolidation of the research and teaching expertise of the eighth-ranked College of Pharmacy in the U.S. will further strengthen the instruction of students and research collaboration among faculty.

The vacated Pharmacy Building will be reassigned to the Department of Biology to provide needed expansion space for classrooms, research, and faculty to meet the needs of the growing student enrollment in UK's largest department.

## 2 Construct Gatton Building Complex

\$101.072.000\*

There is growing demand for high quality, globally competitive business education at the Gatton College of Business and Economics (partly fueled by population growth in Kentucky). To service this demand and support Kentucky's 2020 Postsecondary Education vision statement, the University of Kentucky proposes the construction of four buildings which will constitute the Gatton Business and Economics College campus complex. The 250,000 gross square foot complex will enable the Gatton College to substantially increase its total enrollment in degree programs and employ hands-on and peer-to-peer learning methods demanded by today's students and employers. The new complex will also facilitate the Commonwealth's quest for global competitiveness by providing professional and continuing education services that ensure that Kentucky's business leaders are kept abreast of emerging business issues and innovative management concepts. Strong support for the project exists among the business community. The College already has an endowment of \$50 million in gifts and commitments to enhance its educational mission. The silent phase of our new campus campaign will have yielded at least \$20 million of gifts and pledge commitments by spring 2006.

\*Total budget includes Other-Private Funds of \$38,837,000.

# 3 Construct Law School Building

\$85,081,000\*

The current College of Law building is quantitatively and qualitatively insufficient to support the College's educational program; its services to the Commonwealth's bench, bar, and citizens; its efforts to become a top twenty public law school; and to maintain its accreditation. The proposed new 213,000 GSF building is designed to enhance the Commonwealth's economic development and quality of life and to preserve the College's accreditation. To these ends, the building will provide additional and reconfigured classrooms, teaching technology, and study spaces to support modern teaching techniques, collaborative learning, distance education, and a comprehensive and cutting edge law school curriculum. Also to these ends, the building will alleviate the College's critical current and future needs for a single integrated facility housing the College's faculty, library, legal clinic, student activities, outreach programs, and administration.

\*Total budget includes Other-Private Funds of \$14,920,000.

### 4 Construct Bio-Medical Research Building

\$95,000,000

The proposed Bio-Medical Research Building is approximately 200,000 gross square feet and will house biomedicine and bioterrorism research programs. The new facility is essential to the University of Kentucky's efforts to achieve the legislative mandate of becoming a Top 20 public research university by 2020. It will allow UK to recruit world-class research teams and attract external research support.

## 5 Construct Medicine/Dentistry Building

\$202,410,000

This proposed facility is a multi-functional 500,000 gross square foot facility to house the colleges of Medicine and Dentistry as well as classroom, lab, library, bookstore, and student support space for all health professional colleges – Medicine, Dentistry, Pharmacy, Nursing, Public Health, and Health Sciences. This facility responds to the changing nature of health care education and research, with an emphasis on integrative learning among health professionals and collaborative delivery of health care services. The new facility also is necessary because the current facilities for Medicine and Dentistry are out-dated and poorly configured. The change in location responds to growth in the University of Kentucky's clinical enterprise.

# 6 Construct Digital Technologies Building

\$53,571,000\*

This project will construct a new facility of approximately 120,000 gross square feet for the Department of Computer Science and the Department of Electrical and Computer Engineering, in order to accommodate emerging technologies in high-speed computing, digital signals and nanotechnology.

\*Total budget includes Other-Private Funds of \$6,410,000.

## 7 Expand Chemistry-Physics Building

\$77,059,000

Expand the Chemistry-Physics Building by constructing new wings on its west and south sides. The west side expansion will include a 95,200 square foot five story addition, with a rooftop (2400 square foot) astronomical observatory, plus a 48,300 square foot (shelled) two story addition. The south side addition will be 4 stories with 24,000 square feet. It is assumed that 60% of the total space will be assignable.

## 8 Expand and Upgrade LDDC Phase II

\$13,500,000

LDDC" is the Livestock Disease Diagnostic Center. Additional space is needed for necropsy rooms for animal postmortem examinations for addressing increased large animal necropsy loads. New space is needed to add molecular biology/special procedures capabilities to the laboratory. Modern laboratory and analytical support facilities are required to meet the needs of the clientele of the center. Enhanced biosecurity of entry, storage and disposal of carcasses is essential. Dedicated space is needed for equine and bovine reproductive diagnosis.

# 9 Improve Life Safety, Project Pool

\$4,650,000

This project will involve various types of measures in existing buildings including modifications to spaces, equipment or building systems, and materials for the purpose of minimizing risks to human health and safety.

## 10 Research Equipment Replacement Program

\$25,000,000

It is essential that the University of Kentucky be able to periodically replace existing equipment or to acquire new equipment as part of the infrastructure needed to pursue programs of research which will benefit citizens of the Commonwealth of Kentucky.

### 11 Upgrade / Modify Coldstream Facilities

\$10,000,000

The Coldstream Research Campus anticipates that its University owned facilities (roofs, roads, grounds, utilities, or other infrastructure elements) will require upgrading / modification to meet the needs of the Research Campus's commercial occupants lease property, facilities or space from the University. The University needs capital authority to quickly deal with space and infrastructure upgrades or modifications required for contracts with commercial and private companies locating to Coldstream. In order for Coldstream to be successful as a research and economic development enterprise, the University must have the flexibility to negotiate, sign, and implement contractual arrangements with private corporations in a very timely manner.

# 12 Renovate Lab & Support Space in Med Science

\$9,500,000

This project will renovate approximately 20,000 net square feet of labs in the Medical Sciences Building. The renovation will also upgrade offices, lab support space, and a classroom.

### 13 Expand Pence Hall

\$6,810,000\*

This project will construct a 20,000 gross square feet addition to Pence Hall. The new facility will house class labs (studios), faculty offices, and student support spaces. The new space will be used to consolidate the College of Design into fewer facilities.

\*Total budget includes Other-Private Funds of \$4,300,000.

#### 14 Construct Research Building

\$95,000,000

This project will construct a new research building of approximately 200,000 gross square feet.

### 15 Construct Psychology Building

\$29,651,000

This project will construct a new, 72,000 gross square feet, Psychology Building. The facility will contain classrooms, class labs, offices, research space, and support space.

### 16 Renovate Sections of Funkhouser

\$20,059,000

This project will renovate sections of the Funkhouser Building into a centralized student services facility that will provide students and their guardians with one-stop shopping for all of their service needs. This will also provide new opportunities for the University to improve enrollment procedures, while minimizing the staffing needed for these operations.

# 17 Renovate Facade - Agriculture Building North

\$6.100.000

Replace Ag. North facade and solar screen. The existing Ag. North solar screen deteriorated and is in need of replacement. Replacement with a new solar screen is required for energy conservation.

## 18 Upgrade Pharm. Fume Hood I-Life Safety

\$5,040,000

This project will upgrade the fume hood and ventilation system of the building to modern laboratory standards. The work will include upgrades to the air handling units (AHU), replacement of the temperature and volume controls, upgrades to AHU mixing plenums and dampers, and installation of variable speed controls for the fan motors.

#### 19 Construct Environ. Sciences Facility

\$44,793,000

Expanded environmental sciences research, instruction and public service will be major contributions to economic expansion in the Commonwealth. The new Plant Science Building accommodates most, but not all of the plant, soil and environmental science research in the College of Agriculture. This project will complete the Agricultural Plant Science complex to include all plant science research including research greenhouses that provide purified air for growing transgenic plants. It will also permit all School of Human Environmental Sciences

programs to be consolidated into one building including Family and Consumer Science Extension personnel.

### 20 Renovate 3rd Floor Little Library

\$2,513,000

Upon completion of all phases, this project addresses life safety and ADA concerns in the Little Library in addition to providing permanent instructional and research space for Kentucky's only accredited Library and Information Science program, which places graduates in industry, research, non-profit, and government organizations. This project includes final renovations to provide new classrooms, student facilities, faculty offices, and a student technology center for the School of Library and Information Sciences. Approximately, 20,380 gross square feet are being renovated in all phases.

### 21 Upgrade Elevator Controls in Nursing Building

\$740.000

This project will replace the controls on the elevators in the Nursing Building (Health Sciences Learning Center).

#### 22 Upgrade Fume Hoods TH Morgan - Life Safety

\$3,188,000

This project will upgrade fume hoods, the fume hood exhaust systems, and any necessary upgrades to the supply air systems to support the fume hood upgrades, within the existing 92,500 gsf Thomas Hunt Morgan Biological Sciences Building for the purpose of minimizing risks to human health and safety due to chemical fumes.

### 23 Upgrade HVAC - CAER Ph. III - Life Safety

\$910.000

This project will involve various types of measures at the Center for Applied Energy Research including modifications to spaces, equipment or building systems, and materials including ventilation improvements in chemical areas for the purpose of minimizing risks to human health and safety. Upgrades to fume hood systems are necessary to provide properly functioning safety equipment for labs. Systems to be addressed include supply and exhaust ductwork, fans, exhaust stacks, controls and air balance.

### 24 Improve IAQ - Phase I - Life Safety

\$500,000

This project will correct indoor air quality problems associated with fresh air intakes for the purpose of minimizing risks to human health and safety.

### 25 Abate Asbestos LC II - Life Safety

\$500,000

This project will provide a pool for asbestos testing, minor abatement and repair, and for a prioritized list of major asbestos removal projects. The purpose of this project is to minimize the risks to human health and safety.

# 26 Renovate SECAT Building at Coldstream

\$2,000,000

The Coldstream Research Campus anticipates that renovations will need to occur to fit-up / renovate spaces for commercial occupants leasing portions of the facility from the University. The University needs capital authority to quickly deal with space modifications / fit-up required for contracts with commercial and private companies locating at the Coldstream Research Campus In order for Coldstream Research Campus to be successful as a research and economic development enterprise, the University must have the flexibility to negotiate, sign, and implement contractual arrangements with private corporations in a very timely manner.

## 27 Renovate COM Administrative Offices

\$1,200,000

Gut and rebuild the current Dean's Office Suite, incorporating additional contiguous space as needed. Reconfiguration of the space to accommodate divisions within. Renovation will involve upgrading electrical and HVAC as well as new finishes throughout. Renovation

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needed to accommodate growth under new leadership as well as additional Provost employees.

### 28 Improve Accessibility Project Pool

\$437,000

This project will consist of a pool of funds used to upgrade accessibility issues throughout the campus. The funds will be used on and as-needed-basis for renovation projects requiring accessibility upgrades. Some specific projects may be established to address complaints, or other accessibility issues.

# 29 Purchase Pharmaceutical Analysis System

\$200,000

This equipment will be used to schedule testing, track and monitor trends, control costs and enhance the College of Pharmacy's regulatory compliance.

### 30 Expand Kastle Hall Vivarium

\$4,505,000

This project will renovate the Animal specimen area of a central campus vivarium. The 9,000 sf expansion will allow more researchers access to animal facilities closer to their main campus offices.

## 31 Purchase PET Scanner

\$1,500,000

This equipment will provide clinical subspecialized radiology services to accommodate the steadily increasing outpatient demand. The PET scanner will fill a current void which is a much needed modality at the University.

## 32 Renovate King Library South - 1930 section

\$17,901,000

The King Library complex (1930 building and 1962 addition) needs renovation to be utilized as effective library space. The first phase of the two-phased project will renovate the 1930 building in order to enhance and maximize its use as space for Special Collections and Archives and to reestablish the building's fine architectural features.

## 33 Renovate DLAR Quarantine Facility at Spindletop

\$2,720,000

This Project will renovate approximately 7,500 square feet of the Spindletop Animal Conditioning Facility into an Animal Quarantine Facility. Sufficient renovation space may not be available in the existing facility and a small expansion may be necessary to accommodate the space program. The renovation and possible expansion spaces will include animal rooms, procedure rooms, autoclave and cage wash room, offices, and support spaces.

#### 34 Expand/Renovate Art Museum in Singletary Center

\$23.966.000

This project is for the renovation and expansion of the existing art museum facility in the Singletary Center For The Arts (SCFA) or the creation of a new facility. The purpose is to create increased space for galleries, storage, offices, workroom, classrooms, café, reception and shop areas, with museum-standard HVAC and parking to accommodate a growing program that serves both the university and the community. Since the museum was built in 1979, its programs, collection, and audience have tripled.

# 35 Renovate Labs in Pharmacy Building

\$4,000,000\*

This project will renovate the first floor space that will be vacated by the Center for Pharmaceutical Science and Technology (CPST) along with existing research labs located throughout the building. The renovation will include 12,000 square feet of wet bench laboratories, faculty offices, and research support space.

\*Total budget includes Federal Funds of \$2,000,000.

## 36 Expand KGS Well Sample & Core Repository

\$4,310,000

The project will construct 36,000 gross square feet of additional space and the complete the laboratory facilities, loading dock, office space, and extend the entrance drive. This project

will bring the space requirements up to approximately the total space needs requested in the initial building design by adding an extension to the facility and the necessary perimeter paving.

## 37 Renovate Practice Instruction Space in Pharmacy

\$4,310,000\*

This project will renovate approximately 25,000 square feet of teaching laboratories and classroom instruction space to current standards. The project will reconfigure the spaces to modern state-of-the-art pharmacy teaching classrooms and class labs. The renovation will include upgrades to all mechanical, electrical, plumbing, communications, fire sprinklers, and security systems plus upgrades for code and ADA deficiencies.

\*Total budget includes Other-Private Funds of \$1,000,000.

### 38 Upgrade Pilot-scale Mineral Process Facility

\$600.000

This project will provide adequate facilities to conduct pilot-scale coal and combustion ash beneficiation research for sponsored- and state- funded research. Present facilities are inadequate for conducting the scale of research necessary to complete these types of projects and to provide meaningful engineering data for scale-up.

## 39 Expand CAER Laboratories

\$4,450,000

This project is for the construction/expansion of Center for Applied Energy Research's (CAER) main laboratory building, including the upgrade of the Center's central Fuel Analysis Laboratory. The CAER's current facility is at full capacity, both with respect to research and office space, and the Center cannot presently accommodate its growth. This has caused the Center to upgrade several out buildings to productive research space, but at considerable expense and duplication of facilities, as the buildings were generally unsuitable for this purpose.

### 40 Renov. Graduate Edu. & Research Space in Nursing

\$1,700,000

This project will renovate approximately 10,000 square feet of space in the Nursing Building for graduate education and research use. Space will consist of research facilities, study and work space for graduate students, research assistants, offices, conference rooms, and support areas.

#### 41 Purchase Hydrocarbon Analysis System

\$120,000

This will to purchase a new scientific instrument to improve experimental capabilities, analysis and characterization of carbon and other materials. The measurement technique provided by this instrument is simpler, and more robust than other common measurement methods, and provides superior results in terms of reproducibility and accuracy.

#### 42 Renovate Koinonia House

\$2,715,000

Renovate the second floor of the Koinonia House for the UK Opera Theatre. UK Opera Theatre has been identified as an area for investment by the Futures Committee and continues to receive strong support from the College, the Provost and the community as the "crown jewel" of the College of Fine Arts. This would provide a home for all phases of the program which would be under one roof and would be a major asset in terms of recruiting the best graduate students in the world.

#### 43 Lab Security Systems Project Pool

\$500,000

This project will involve various types of measures to provide security of biological agents and toxins as mandated in the Public Health Security and Bioterroism Preparedness Act of 2002.

## 44 Purchase High Res. Optical Microscope

\$110.000

This will purchase a new high resolution optical microscope to improve experimental capabilities, analysis and characterization of coal, coal by-products, carbon and other

materials. This instrument is fairly conventional and will replace an old microscope employed heavily at the Center for Applied Energy Research (CAER) for petrographic analysis. The new system is better equipped for on-line data acquisition, analysis and imaging with networking capabilities.

## 45 Install Emergency Generator Computing Facility

\$500,000

An emergency generator is needed to ensure 24 X 7 power for the University of Kentucky's major computing resources (supercomputer, mainframe, and 150 servers including both email systems and web services). Periodic power outages result in the unplanned shutdown, and associated disruption to services, of these systems. Additionally, telephone operations (UK Medical Center emergency paging, operator assistance) and WUKY FM radio are affected by power outages. There are no formal citations.

#### 46 Renovate Bowman Hall

\$10,089,000

This project will partially renovate Bowman Hall which is located on Washington Avenue. The project will provide basic life safety and environmental improvements. Renovation of portions of the historic Bowman Hall can provide common space where academic support services, programs, and resources meet the diverse instructional needs of faculty, teaching assistants, departments, and colleges to accomplish teaching, learning, research, and service activities through the innovative and appropriate use of technology.

## 47 Purchase Environmental Scanning Probe Microscope

\$480,000

This request is to purchase a new scientific instrument to improve experimental capabilities, analysis and characterization of conductive and non-conductive samples as they are found in the environment. Newer versions provide for digital data acquisition, analysis and imaging with networking capabilities.

### 48 Renovate Reynolds Building

\$15,525,000

Renovate 56,000 square feet of the Reynolds Building including, but not limited to, electrical upgrade, ventilation, HVAC, new restrooms and a reconfiguration of the studio spaces. Safety, handicap accessibility and health issues are top University priorities. This project addresses deferred maintenance needs and quality of the learning environment.

#### 49 Purchase Laser Ablation Sampling Sys.

\$200.000

This request is to purchase a new attachment for the Center for Applied Energy Research's (CAER) existing ICP/MS to improve experimental capabilities, analysis and characterization of coal, coal by-products, environmental samples, carbon and other materials. Laser ablation results in significant advantages over CAER's current solution nebulization, associated with sample preparation, which lead to less exact and reproducible experimental results.

# 50 Replace Air Handling Units Central Computing Fac

\$600,000

Adequate air conditioning is essential to maintaining the proper environment for UK's computing resources (supercomputer, mainframe, and 150 servers-including both email systems and web services.) The current air handling equipment over 20 years old and is becoming unreliable. Replace air handling units with 20-ton air handling units.

# 51 Purchase Pharmaceutical Development Instrument

\$183,000

This equipment is for the College of Pharmacy to be used for formulation development of new drug dosage.

### 52 Purchase FTIR Microscope with mapping

\$105,000

This request is to purchase a new attachment for the Center for Applied Energy Research's (CAER) existing FTIR to improve experimental capabilities, analysis and characterization of coal, coal by-products, environmental samples, carbon and other materials. The

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measurement technique provided by this instrument is simpler and more robust than other common measurement methods, and provides superior results in terms of reproducibility and accuracy.

### 53 Purchase Common Romm Package

\$250,000

Purchase Common Romm Package of the Graduate Center for Nutritional Sciences.

## 54 Purchase Hi-resolution FTIR Imaging System

\$160,000

This request is to purchase a new attachment for the Center for Applied Energy Research's (CAER) existing FTIR to improve experimental capabilities, analysis and characterization of coal, coal by-products, environmental samples, carbon and other materials. The measurement technique provided by this instrument is simpler and more robust than other common measurement methods, and provides superior results in terms of reproducibility and accuracy.

### 55 Renovate Taylor Education Building

\$52,405,000

This request is to renovate a historically significant campus building, Taylor Education Building located in the College of Education complex. The work will include some renovation to the Dickey Hall. The proposal to maintain the buildings while completely renovating its interior to provide a 21st century university environment addresses student learning goals established by state and national accrediting bodies while providing needed research space for faculty and student projects.

## 56 Purchase ESCA-X-ray Photoelect Micro.

\$400,000

This request is to purchase a new scientific instrument to improve experimental capabilities, analysis and characterization of catalysts and other materials. As with all research instrumentation, the newer technologies offer improvements in computer control and manipulation, detectors, x-ray and electron sources, vacuum pumps, and other important features which extend the instrument's capability and flexibility of use.

## 57 Purchase Open MRI Unit

\$800,000

This equipment will provide clinical subspecialized radiology services to accommodate the steadily increasing outpatient demand.

#### 58 Purchase MRI Equipment

\$2,000,000

The Magnetic Resonance Imager will provide researchers specialized equipment.

#### 59 Purchase Microscope

\$165,000

This equipment will expand capabilities for cellular mechanism of pulmonary cardiovascular functions. For support of medical center research potentially funded by outside grants and/or client contracts.

## 60 Expand Grehan Journalism Building

\$15,782,000

This project is an expansion of the existing Grehan Journalism Building. This expansion would create critically needed space for the growing instructional and research activities of the College of Communications and Information Studies. Space projections provided in May 2002 project a need to increase space by as much as 100% by 2010 and beyond. Additional square feet added by expansion approximately 30,100.

### 61 Purchase Upgraded Integrated Library System

\$700,000

The University Libraries needs to upgrade its present Integrated Library System (ILS) which is essential for use by both patrons and library personnel. The ILS is used by staff for purchasing, cataloging, lending, and tracking library resources. The ILS is used by library

patrons to search the library catalog, review their accounts, and access electronic information.

### 62 Renovate Central Computing Facility

\$2,811,000

Renovating the computing facility will provide a secure, stable, environment for the University's supercomputer, mainframe, and servers. The renovation includes 11,550 square feet of space.

## 63 Expand Animal Science Research Center - Phase II

\$23,184,000

Phase II of the development of the Animal Research Facility will provide modern facilities for research in Animal Sciences including a 31,000 s.f. Learning Center and a 157,000 s.f. dairy facility. This project will complete the move of animals from Coldstream Farm for development of the Coldstream Research Campus.

### 64 Renovate Slone Building

\$9,089,000

The complete renovation of the Slone Building will provide updated laboratory and office space for the Department of Geological Sciences and upgrade the current HVAC system to meet air quality requirements.

### 65 Purchase Police Communications Equipment

\$600,000

Upgrade radio system, add mobile data terminals in all department vehicles, add GPS and Automatic Vehicle Location systems to all department vehicles, upgrade the department's transmitting/receiving antenna system, and expand and upgrade the campus-wide emergency telephone system.

#### 66 Purchase Electron Spin Resonance Instr.

\$320,000

This equipment is an electronic apparatus for studying unpaired electrons in new materials.

# 67 Fit-up Education Space in Health Science Bldg

\$1,000,000

This project will fit-up approximately 4,000 net square feet of space located in the basement of the Health Science Building. The space will include the latest in technology for an auditorium/classroom.

#### 68 Replace Steam and Condensate Pipe

\$5.500.000

This project will replace central steam and condensate piping system. The Central Utilities Systems of the University of Kentucky have proven to be very economical to maintain and operate. It reduces the construction cost of new buildings by eliminating redundancy in buildings and reduces the operational cost of new and existing buildings by providing reliable and low cost energy alternatives at central locations.

# 69 Purchase Digital Media Distribution System

\$186,000

William T. Young Library Audio Visual Services will replace the current media distribution system within six years. The current Educational MultiMedia Network (EMNet) system is six years old and based on analog technology. The recording and distribution format for electronic media is rapidly moving from analog, e.g. videotape, to digital, e.g. Digital Video Disk (DVD). Further, next generation digital media will be stored on data servers and distributed to the desktop and to portable devices similar to the way music files are distributed today. This transition will require a system capable of storing and serving video and audio to meet the needs of the university community.

# 70 Purchase Studio Recording Equipment

\$113,000

The Singletary Center for the Arts (SCFA) wishes to purchase equipment and officially establish a professional state-of-the-art recording studio using television and monitor hook-up to the Concert Hall, Recital Hall and Rehearsal Room. Performances would be professionally

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recorded as well as recording sessions set up in down times. Such professional recording would need a full-time technician to handle the operation and would generate income to offset some of the associated costs. The equipment being used currently by the SCFA is not of commercial quality. In the current market there is a need to produce such works for students and faculty.

## 71 Purchase Garbage Truck Front Loader

\$175,000

Garbage Truck Front Loader 40 Cubic Yard-Replacement.

## 72 Renovate College of Public Health Building

\$6,057,000

This project will renovate the School of Public Health Building (Research #1 Building), the former College of Allied Health Sciences Building. The work will include upgrades to finishes, mechanical, electrical, fire alarm, and communications systems.

### 73 Purchase Scanning Electron Microscope

\$700,000\*

This project will acquire a Scanning Electron Microscope for the Electron Microscopy Facility. The Scanning Electron Microscope (SEM) will alleviate some of the load on the current SEM instruments, provide advanced analytical tools, and digital imaging analysis. Electronic imaging in this range is critical to providing UK researchers with characterization tools for nanomaterial and nanotechnology.

\*Total budget includes Federal Funds of \$350,000.

### 74 Replace Law Building Marble Facade

\$930.000

This project will renovate the marble façade of the Law Building. The marble façade of the Law Building is in disrepair.

### 75 Purchase Integrated Imaging System

\$130,000

Purchase an Integrated Imaging System for the Graduate Center for Nutritional Sciences.

## 76 Replace Central Facilities Management System

\$3,500,000

This project will replace existing Facility Management Systems with a networked state of the art system. The existing system is a 1970's system expanded in 1980. It has reached the end of life and needs to be replaced.

## 77 Purchase DNA Microarray Facility

\$300.000

Acquire DNA spotting equipment, Array microhybridization, Fluorescent Microarray Reader, and PCR robotics

### 78 Replace Chemistry Physics Ductwork

\$2,200,000

This project will replace internally lined ductwork to improve indoor air quality. The supply duct system has internally insulated ductwork. Over the years the insulation has trapped particulate matter and begun to breakdown and now is distributing these products into the labs and offices. The ductwork is to be replaced with externally insulated ductwork.

### 79 Purchase Three Ultrasound Units

\$450,000

This project will provide clinical subspecialized radiology imaging to the community and state, addressing the need of a growing population.

### 80 Replace Central Fire Alarm System

\$2,500,000

This project will replace an antiquated fire alarm system and connect to a new centralized fire alarm system. It will add network communication to non-network systems and upgrade large and medium scale systems to addressable device systems. Add network and addressable will improve the reliability of the fire alarm system.

### 81 Purchase Focused Ion Beam Machine (FIB)

\$500.000\*

This project will acquire a new Focused Ion Beam (FIB) system for support of research in nanotechnology. The FIB system is an important tool for nanomanufacturing that will complement other equipment at the University of Kentucky. The instrument can be used to develop new nanomaterials. The equipment will be included in the nanomaterials characterization partnership, linked to the University of Louisville and several important local industries.

\*Total budget includes Federal Funds of \$250,000.

# 82 Improve Central Heating Plant

\$4,860,000

This project includes modifications of piping, pumping, electrical distribution, air compressor, fuel handling, exhaust emissions, fan and control system in the buildings and primary distribution system exterior of the buildings. The dependability of the system is deteriorating and the system now provides steam to 115 buildings totaling over 9,000,000 square feet. Addition to the system has stressed the ability of the plants to meet peak load conditions during extreme weather conditions.

## 83 Purchase Network Infrastructure Restructuring

\$160,000

Upgrade connections, firewalls, wireless systems, in Patterson Office Tower and Whitehall Classroom Building for the Department of Mathematics.

### 84 Improve Storm Sewer Funkhouser

\$1,225,000

This project will improve storm water drainage from the Funkhouser area to Limestone Street at Gatton Building. Several buildings flood during periods of heavy rain when the cave system fills which has taken on an additional load from new buildings added to the system.

### 85 Purchase GIS Remote Sensing Teaching Lab

\$160,000

The equipment requested includes 18 personal computers, a server, software, furniture, and related equipment that is needed to create a lab to teach Geographic Information Science/Systems to undergraduate and graduate students in Geography and other disciplines that utilize GIS.

# 86 Install Chilled Water Pipe-Clg 2 to Pit

\$1,500,000

Install chilled water pipe additions to facilitate central chilled water system operation. Project will include system piping additions and valving. This project includes piping of chilled water mains from Cooling Plant #2 to the Service Building Pit east of Limestone Street to insure proper distribution of the added plant capacity. This project is necessary to provide additional capacity within the Central Chilled Water System to adequately accommodate additional loads imposed by new construction, renovation, and the addition of existing buildings to the central system.

## 87 Purchase 500 MHz NMR Spectrometers

\$1,000,000

The Department of Chemistry currently has two 200 MHz NMR research instruments that are now outdated both in electronic capability and resolving power. To continue to develop a first rate NMR service to the University it will be necessary to replace these NMRs with two modern and more powerful 500 MHz instruments. The two 200 MHz instruments will used as undergraduate teaching instruments.

## 88 Install Cooling Secondary Pumping

\$2,800,000

This project will install chilled water pumps in various buildings. This project is to relieve an inadequate chilled waterflow situation created by the addition of new buildings without upgrading the chilled water pumping and piping design. New buildings are being added with individual secondary pumping, requiring the addition of secondary pumping on existing individual buildings.

### 89 Purchase Automated DNA Sequencer

\$130,000

The Automated DNA Sequencer is an instrument designed for the electrophoretic separation detection, and automatic analysis of fluorescent dye labeled DNA molecules.

### 90 Replace Cooling Plant Chillers

\$6,000,000

This project includes replacement existing chillers with larger and more efficient units and additional cooling tower capacity. The project also includes modifications of main chilled water piping and pumping system in the building and the primary distribution system exterior of the building to accommodate the added capacity. Exterior piping peripheral equipment modifications and control monitoring are necessary to provide primary/secondary central plant pumping.

# 91 Purchase Redundant Disk Server System

\$170,000

Upgrade existing system for greater reliability for the Department of Math.

### 92 Replace Master Clock and Bell System

\$1,750,000

This project will replace centralized campus wide synchronized clock and bell system with a controller in each building or clock. The existing system is a power line carrier system at end of its life. New computer and electronic equipment in the buildings absorb the carrier signals and degrade performance of clock and bells.

## 93 Purchase High Resolution Laser System

\$350,000

This system would be used by our physical chemistry group to support on going NSF and PRF funded studies on the refined structure of small molecules in the gas phase. These studies are at the forefront of modern chemistry. Having such equipment makes our faculty more competitive for federal grants. Vital for conducting experiments in physical chemistry for the department of chemistry.

# 94 Repair Concrete Phase I General Campus

\$750,000

Replacement of damaged concrete including: walkways, curbs and handicapped ramps, plus installation of new walkways where dirt paths have developed. The repairing and replacing of concrete walkways, plus other concrete improvements, is for human safety and handicapped access.

### 95 Repair Blacktop Phase I General Campus

\$750,000

This project will replace the deteriorating blacktop of campus streets and parking lots. Campus blacktop surfaces and foundation materials require attention due to age and environmental damage.

# 96 Purchase Confocal Microscope

\$250,000

This item is an integrated confocal laser scanning microscope system specifically designed to meet the demands of 3-D microscopy.

# 97 Upgrade Electrical Substation

\$4,500,000

This project will install electric transmission interconnect circuits between Substation #1 and Substation #2 and all associated breakers, air switches, relays, pads, manholes, duct banks, disconnects, electronic fuses, structure, bus bar, air disconnects and load monitoring and control equipment. This project will provide relief for an inadequate underground transmission and distribution system between Sub #1 and Sub #2 and will provide sufficient transmission line capacity to transfer electrical power from Sub #1 and Sub #2 and to buildings and facilities between them.

Total Budget

### 98 Purchase Cryoprobe for a 600 MHz NMR

\$200,000

Protein NMR is the best and most refined way to study the 3-dimensional structures of important proteins. However, NMR generates some heat that denatures these proteins. By coupling a cryoprobe to the NMR the enzymes are stabilized by the low temperatures and more refined studies can be accomplished.

## 99 Install Chilled Water Pipe to South Campus

\$6.000.000

Install chilled water pipe additions to facilitate central chilled water system operation. This project will include system piping additions and valving.

### 100 Purchase HPLC

\$145,000

This equipment is used to do analytical chemistry testing on pharmaceutical products.

### 101 Install Chilled Water Additions General Campus

\$1,100,000

Install chilled water pipe additions to facilitate central chilled water system operation. This project will include system piping additions and related connections for new and existing buildings.

# 102 Purchase Facscan for Flow Cytometry

\$140,000

Purchase a Facscan for Flow Cytometry for the Graduate Center for Nutritional Sciences.

## 103 Replace High Voltage Wiring

\$775,000

This project will replace 12KV medium voltage cables, ductbank, manholes, switches and associated infrastructure. Portions of the underground 12KV System on the Lexington Campus are 30 years old. These sections are beginning to deteriorate to the point of unplanned outages. This project will provide for the replacement of the older underground cables in the system.

### 104 Purchase Fluorescent Cell Sorter

\$200,000

This is a complete system for sorting, collecting and analyzing cell populations labeled with multiple fluorochromes. This equipment inlcudes computer system and software to support data analysis.

#### 105 Replace McVev Hall HVAC

\$3.520.000

This project will provide HVAC to meet indoor air quality (IAQ) and comfort requirements from a central utility source. The current HVAC system is inadequate and must be upgraded to meet current air quality requirements.

### 106 Purchase Laser Photoelectron System

\$280,000

This laser system is used to probe small gaseous molecules by elevating their electrons to an activated state. As the electrons revert back to the original ground state information is collected that allows for the determination of the three dimensional structure of the molecules. The use of lasers is fundamental to basic physical chemistry studies and having this equipment makes our faculty more competitive for NSF and military funding.

### 107 Replace Mathews Building HVAC

\$1,438,000

This project will provide HVAC to meet indoor air quality (IAQ) and comfort requirements from a central utility source. The current HVAC system is inadequate and must be upgraded to meet current air quality requirements.

### 108 Purchase Dedicated Supercomputer

\$330,000

Purchase specialized computing equipment consisting of several boards containing hardware tuned for special high-speed calculations of interacting systems, e.g. numerical simulations of

**Total Budget** 

particle hydrodynamics for the study of galaxy evolution. These boards, integrated into a topof-the-line workstation, would be the fastest US computer dedicated to basic research.

### 109 Replace HVAC Slone Building

\$2,917,000

This project will provide HVAC to meet indoor air quality (IAQ) and comfort requirements from a central utility source. The current HVAC system is inadequate and must be upgraded to meet current air quality requirements.

## 110 Purchase Gas-Source Isotope-Ratio Mass Spec

\$100,000

This would allow high precision determination of stable isotopic composition of C, H, O, and N in solvent soluble organic compounds which are separated by gas chromatography. It will provide new faculty with capability for compound-specific isotope characterization of organic substances for the department of Geological Sciences.

### 111 Replace HVAC Kastle Hall

\$3,100,000

This project will provide HVAC to meet indoor air quality (IAQ) and comfort requirements from a central utility source. The current HVAC system is inadequate and must be upgraded to meet current air quality requirements.

# 112 Purchase Physiology Workstation

\$101,000

This request is to support a future hire working in the area of neurobiology. A Physiology Workstation consisting of specialized amplifiers, manipulators, a research microscope plus video imaging system and an ultrafast computer for data acquisition and storage would be at the heart of this individual's research activities.

Modern physiology, such as neurobiology, requires highly automated, electrically refined physiology workstations with automatic recording equipment operable on the cellular and subcellular level.

### 113 Replace Fine Arts HVAC

\$4,500,000

This project will provide HVAC to meet indoor air quality (IAQ) and comfort requirements from a central utility source. The current HVAC system is inadequate and must be upgraded to meet current air quality requirements.

# 114 Purchase DNA Sequencer

\$135,000

The ability to "read" DNA sequence information is fundamental to genomics. The two DNA sequencers requested will meet the anticipated core equipment needs of this research.

# 115 Replace Three Elevators MI King South

\$1,130,000

This project will replace three elevators located in MI King Building South. The elevators are the original ones installed in 1930. Downtime has become a problem. Safety features and elevator code requirements need to be addressed.

### 116 Purchase Ultra High Vacuum System

\$250,000

The project will purchase a customized high vacuum chamber for the Department of Physics.

#### 117 Renovate Barker Hall

\$7,605,000

Renovate building interior and mechanical, electrical system. Barker Hall was constructed in 1902. The building requires a general interior renovation complete with upgraded safety features for the entire building. An elevator is included in this project. Includes HVAC upgrades to meet indoor air quality and comfort.

## 118 Add Centralized Emergency Generator

\$5,542,000

This project will add centralized emergency generator system, including generator, transfer equipment, control, wiring, ducts and miscellaneous associated equipment. This is needed to reduce quantity of individual building generators and to improve reliability of emergency power for Medical Center Buildings, Campus Buildings and Research Facilities.

### 119 Purchase 300 MHz Console

\$300,000

A console for a 300 MHz NMR for the department of Chemistry. The existing 300 MHz NMR has an operating console that is out of date. Obtaining a modern console will allow for more extended and more modern studies to be done using this NMR with a minimum of expense. The current console cannot use modern programs.

# 120 Expand Plant Capacity Infrastructure

\$25,500,000

Installation of chilled water piping, steam piping and electrical service for connection to future buildings. The project will include piping, pumping, valving, controls, wiring, manholes and connections to existing system on the east side of Limestone Street. This project is necessary to provide heating, cooling and electrical service to adequately accommodate additional loads composed by new construction.

# 121 Purchase Shared Desktop Environment

\$250,000

Development of distance learning requires development of "distance office hours" and conferencing capability. The best approach at this point is through shared desktop environments in which student(s) and teacher/tutor are able to speak conversationally and share applications across the internet. This is integrated with the WHS, Mathskeller, Keralab, and the video lab.

### 122 Construct Library Depository Facility

\$6,415,000\*

Construct a shared, fee-based, depository storage facility that would house and service University library materials that are seldomly used yet valuable for research purposes. It would also house University Archives and other University departmental documents and collections. This facility would be owned and administered by UK Libraries, but use of its space and services would be extended to other UK and non-UK departments and libraries for a fee.

\*Total budget includes Federal Funds of \$3,500,000.

# 123 Purchase Thermal Ionization Mass Spectrometer

\$650.000

This instrument permits determination of concentrations and isotopic ratios of a variety of elements (boron, beryllium, strontium, neodymium, osmium, lead) used as tracers for environmental and crustal evolution processes, and determination of absolute ages of geologic events. This will provide new faculty with capabilities for radiometric dating and petrogenetic studies for the department of geology.

# 124 Purchase DNA Sequencer

\$125,000

The ability to "read" DNA sequence information is fundamental to genomics. The two DNA sequencers requested will meet the anticipated core equipment needs of this research.

### 125 Replace Steam Line MC Htg - Hosp Drive Pit 2

\$2,114,000

This project will replace steam and condensate piping system in shallow trench with pits and necessary valves, traps, etc. as identified by the Steam Study Master Plan

#### 126 Renovate Research Labs in Med Center, III

\$2,000,000

This project will include the renovation of approximately 3,500 square feet of labs and lab support space in the Med Center. The work will include upgrades to the fire sprinklers, electrical, plumbing, HVAC, controls, and communications. The space will receive new casework, fume hoods, and other furnishings along with new finishes on the floors, walls, and ceilings.

## 127 Replace Steam Line Lime Tunnel - Main Gate Pit

\$3,100,000

This project will replace steam and condensate piping system in shallow trench with pits and necessary valves, traps, etc. as identified by the Steam Study Master Plan.

## 128 Purchase DNA Chip Analysis System

\$160,000

This equipment will accept DNA or tissue from an individual and analyze a wide array of DNA sequences for presence or absence. This equipment is used by the Department of Biology.

### 129 Replace Steam Line Lime Tunnel - POT Tunnel

\$1.060.000

This project will replace steam and condensate piping system in shallow trench with pits and necessary valves, traps, etc. as identified by the Steam Study Master Plan.

### 130 Renovate Research Labs in Med Center, I

\$1,500,000

This project will include the renovation of approximately 3,500 square feet of labs and lab support space in the Med Center. The work will include upgrades to the fire sprinklers, electrical, plumbing, HVAC, controls and communication systems. The space will receive new casework, fume hoods and other furnishings along with new finishes on the walls, floors and, ceilings.

### 131 Install Steam Line BBSRB - Old Main Gate Pit

\$6,865,000

Install steam and condensate piping system in shallow trench with pits and necessary valves, traps, etc. as identified by the Steam Study Master Plan.

### 132 Purchase HPLC Mass Spectrometer

\$400,000

Mass Spectrometry coupled with high performance liquid chromatography separations is the most modern way to identify chemical and biochemical components in a mixture. It is the state of the art for modern toxicology and chemical studies that are on-going research. For use in the department of Chemistry.

# 133 Replace Steam Line Main Gate Pit-Anderson Pit

\$2,750,000

This project will replace steam and condensate piping system in shallow trench with pits and necessary valves, traps, etc. as identified by the Steam Study Master Plan.

## 134 Replace Steam Line Kastle - Chem/Phys Pit 28

\$775,000

This project will replace steam and condensate piping system in shallow trench with pits and necessary valves, traps, etc. as identified by the Steam Study Master Plan.

### 135 Purchase Two Digital Radiology Units

\$1,100,000

This equipment will provide clinical subspecialized radiology services to accommodate the steadily increasing outpatient demand.

### 136 Install Pollution Controls

\$1,900,000

The original equipment installed for this purpose in the late 50's will not meet the current standards and has reached the end of its economic life. New controls will allow burning of coal as the University's main source of heating in an efficient and effective manner well into the next century

#### 137 Renovate Research Labs in Medical Center. IV

\$2,500,000

This project will include the renovation of approximately 5,000 square feet of labs and lab support space in the Med Center. The work will include upgrades to the fire sprinklers, electrical, plumbing, HVAC, controls and communication systems. The space will receive new

casework, fume hoods, and other furnishings along with new finishes on the walls, floors, and ceilings.

## 138 Capital Renewal Maintenance Pool Phase 1

\$31,607,000

This project is to establish a pool of funds for 1)needed maintenance projects not funded in the operating budget and therefor deferred to a future period; and 2)facility systems that have failed and that have not exceeded 90 percent of their life expectance.

### 139 Purchase Phospho/Fluoro Imager

\$150,000

An instrument used by many Department of Biology faculty for the digital imaging of biological samples containing molecules(proteins, lipids, nucleic acids, carbohydrates) that are tagged with radioactive, fluorescent or luminescent probes. The ability to detect and quantify such molecules is essential for biochemical and molecular analyses. The request is to replace the current phospho/fluoro imager with a more advanced model in the period 2004-2010.

## 140 Renovate Research Labs in Med Center, II

\$1,800,000

This project will include the renovation of approximately 4,000 square feet of labs and lab support in the Med Center. The work will include upgrades to the fire sprinklers, electrical, plumbing, HVAC, controls and communication systems. The space will receive new casework, fume hoods and other furnishings along with new finishes on the walls, floors and ceilings.

### 141 Purchase Encapsulator

\$151,000

This equipment is used to fill powders into capsules for the College of Pharmacy.

### 142 Improve Exterior Lighting, Phase 1

\$1,200,000

Project would include a detailed study of the campus grounds relative to pedestrian traffic at night, replacement of existing inefficient lighting, additional lighting needed to establish safe routes, and general security enhancements (landscape, communications, design features, etc.) to improve pedestrian safety.

# 143 Renovate Research Space Medical Center, I

\$3,000,000

This project will include the renovation of approximately 7,500 square feet of labs and lab support spaces.

## 144 Improve Oswald Building, Capital Renewal

\$1,600,000

Project includes capital renewal of the Oswald Building. Project includes capital renewal of such items as building mechanical and electrical systems, controls, energy management system, spline ceilings, sanitary pumping system, toilet partitions, and plumbing fixtures

### 145 Purchase DNA Sequencer/Genetic Analyzer

\$110,000

Acquire automated DNA sequencer to facilitate DNA sequence determination.

## 146 Purchase External Systems Monitoring

\$100,000

This is a security system designed to monitor the normal operation of the computer systems as a whole as well as provide intruder detection and handling. It consists of hardware, software, and custom software. Hardware includes firewall machines to wall off the mathematical sciences computer systems from the rest of campus and the world.

Total Budget

### 147 Install Steam Line—Taylor to Transportation Bldg

\$6,725,000

Install steam and condensate piping for northwest section of campus with a tunnel under Limestone at Transportation Bldg and North behind Taylor Bldg.

#### 148 Purchase Nucleic Acid Workstation

\$150,000

Purchase a Nucleic Acid Workstation for the Graduate Center for Nutritional Sciences.

## 149 Install Steam Line Blazer to Singletary Center

\$5,275,000

Install steam and condensate piping from Blazer Hall at Martin Luther King Blvd to corner of Euclid and Rose Streets.

## 150 Purchase X-Ray Laue Unit-Single Crystal

\$150,000

The X-Ray Laue Unit - Single Crystal is for the College of Arts & Sciences. This is a standard materials characterization piece of equipment used to support solid state physics, metallurgy, and chemistry research.

#### 151 Purchase CT Scanners

\$650,000

The CT Scanner will provide clinical subspecialized radiology imaging to the community and state, addressing the need of a growing population.

## 152 Purchase Flow Cytometer

\$108,000

Flow cytometry has become a basic assay in cell biology applicable to cell cycle and apoptosis research for the department of biology.

### 153 Purchase Helium Liquefier and Recovery System

\$500.000

Purchase and install a helium compressor and liquefier and helium gas recovery system in the Chemistry-Physics building. All liquid helium cryostats in the building will be tied to the recovery system, so that liquid helium used for cooling superconducting magnets, including NMR magnets, and low-temperature experimental probes, can be returned to the compressor and reused. The liquid helium produced will also be available for users (e.g. NMR) in other campus buildings.

### 154 Purchase Oxymax Open Circuit Calorimeter

\$130,000

The indirect open circuit calorimeter designed for use on large animals (horses, cattle, etc.), accommodates air flow up to 15,000 liters per minute and measures oxygen consumption and carbon dioxide production.

### 155 Upgrade Bldg Entrances Safety & Security

\$1,100,000

Upgrade building entrances for safety and security, to include such items as automated locking/unlocking features from a central controller/server, card access systems, video, motion detectors, and/or emergency telephones.

## 156 Purchase Inductive Coupled Spec Sys

\$120,000

The Inductive Coupled Plasma Spectrometer (ICPS) is a modern instrument, which can analyze soil, plant, or water samples for more than 30 elements simultaneously.

# 157 Upgrade Fume Hood in Sanders Brown-Life Safety

\$2,600,000

This project will upgrade the fume hood and ventilation system of the Sanders-Brown building to modern laboratory standards. The work will include upgrades to the air handling units (AHU), replacement of the temperature and volume controls, upgrade AHU mixing plenums and dampers, and installation of variable speed controls for the fan motors.

Total Budget

### 158 Purchase Analytical Biosensor

\$295,000

The analytical biosensor is an automated instrument for label-free biomolecular binding studies and mutant analysis.

### 159 Purchase DNA Sequencer/Genetic Analyzer

\$121,000

This equipment is a DNA sequencer and genetic analyzer with high-throughput capability. The equipment must allow analysis of multiple samples simultaneously and provide sequences up to 1 kilobase; it must also be capable of multiple analyses required for population and multiple species analyses.

# 160 Purchase Automated Nucleic Acid Extraction & PCR

\$150,000

This machine automatically extracts nucleic acid from biological specimens and performs various types of polymerase chain reactions.

#### 161 Purchase Laser Based Total Image Analysis System

\$113,000

This recently introduced, high-end image analysis system would provide for the Department, in addition to all the digital imaging capabilities available on more conventional systems, resources for performing cutting-edge technologies likely to be of increasing importance in future biomedical research.

## 162 Renovate Faculty Office Space in Med Center

\$742,000

This project will renovate approximately 4,000 square feet of faculty office space in the Medical Center.

### 163 Purchase Mass Spectrometer

\$200,000

This system combines a liquid chromatograph (HPLC) with two coupled mass spectrophotometers.

### 164 Renovate Erikson Hall

\$7,465,000

This project is to Renovate Erikson Hall, which was built in 1940. The project will include enhancement of teaching and instructional facilities for the College of Human Environmental Sciences; upgrade of the infrastructure (electrical wiring, pipes, heating/cooling system, etc.); modernization and expansion of food science labs; new lighting and floor/stairs surfaces; new roof and windows; interior painting; remove and repair porch ceiling and stop flooding in the basement.

#### 165 Purchase MRI Scanners

\$3.600.000

The Magnetic Resonance Imager will provide clinical subspecialized radiology imaging to the community and state, addressing the need of a growing population.

## 166 Purchase Confocal Microscope

\$600,000

This is a sophisticated video imaging system with advanced optics and a computer that translates the optical information into digital information, which it then can analyze.

### 167 Expand West Kentucky Research and Education Ctr

\$4,000,000

An enhanced West Kentucky Research and Education Center through purchase of 60 acres of contiguous land, renovation of buildings on said land and construction of new greenhouses on said land would be a major contribution to economic expansion in the Commonwealth.

### 168 Purchase Fluorescence Activ. Cell Sorter

\$220,000

This is a complete system for sorting, collecting and analyzing cell populations labeled with multiple fluorochromes. The equipment includes computer system and software to support data analysis.

Total Budget

#### 169 Purchase Ultrasound Units

\$150,000

This project will provide clinical subspecialized radiology imaging to the community and state, addressing the need of a growing population.

### 170 Purchase HPLC/Mass Spectrophotometer System

\$300,000

The HPLC/Mass Spectrophotometer is a highly specialized laboratory instrument that can identify poisons that harm animals that cannot be detected by other means. This instrument greatly expands the range of assays that can be done on animal and plant tissues and environmental samples at the Livestock Disease Diagnostic Center. Animal owners will benefit directly from the use of the HPLC/Mass Spectrophotometer because assays that are sent to other laboratories will be done in-house. No change to these facilities will be needed to accommodate this instrument.

### 171 Purchase Two Digital Radiology Units

\$1,100,000

This project will provide clinical subspecialized radiology imaging to the community and state, addressing the need of a growing population.

## 172 Renovate Bradley Hall

\$6,391,000

This project will renovate Bradley Hall to better serve students, staff and international visitors. The building is not ADA accessible. It needs an elevator, sprinklers, storm windows, new heating and air conditioning system, and removal of asbestos tile from hallways.

# 173 Purchase Laser Capture Microdissection System

\$126,000

This new technology would permit molecular analysis and comparison of gene expression in single cells or in specific cellular subsets of organized tissue captured by laser-based microdissection of target tissue identified at the microscopic level.

### 174 Purchase Liquid Filling/Stoppering Line

\$351,000

This equipment is used to automatically fill vials with sterile solutions.

### 175 Purchase Four PACS Workstations

\$480,000

The PACS workstations are part of an Imaging Center and are used to interpret the images.

#### 176 Purchase Plant/Microbial Growth Chamber

¢100 00

Environmentally-controlled cabinets (even, of walk-in size) for growing healthy and infected plants

### 177 Construct Gluck Equine Res Ctr-Phase II

\$39,407,000\*

The Research Challenge Trust Fund has provided five endowed chairs in the Gluck Equine Research Center. Expanded facilities, especially bio-containment facilities, are necessary to enable expansion into research of some infectious diseases of current significance to the equine industry.

\*Total budget includes Other-Private Funds of \$1,500,000.

### 178 Purchase Semi-Solid Manufacturing Equip.

\$211,000

This equipment is used to manufacture ointments, gels, and waxes for the College of Pharmacy.

# 179 Purchase Confocal Microscope

\$500,000

This equipment permits the imaging of the internal components of a cell. It is extremely useful in determining where proteins are located within a cell and how they function.

Total Budget

## 180 Purchase Two Mammography Units

\$900,000

The digital mammography units are computerized filmless equipment for providing breast screenings. They will be used at an off-site Imaging Center for women.

# 181 Purchase LCMS Instrument System

\$225,000

A new instrument will be obtained to measure feed components that are detrimental to equine. A new chromatography system with a mass detector will be added to the laboratory to measure ingredients in feed materials. The analytical capabilities of this system will extend and enhance our lab by adding new tests for feed components and will allow more specific measurements on components that are currently measured.

## 182 Purchase Terminal Sterilizing Autoclave

\$221,000

This equipment will be used to sterilize pharmaceuticals after manufacturing for the College of Pharmacy.

### 183 Expand Lafferty Hall

\$6,765,000

Provide 13,900 square feet of laboratory, curation, and office space for the Museum of Anthropology, the Office of State Archaeology and the Kentucky Archaeological Survey.

### 184 Purchase Breast Ultrasound Unit

\$120,000

The breast ultrasound will be part of an off-site Imaging Center for women. The breast ultrasound is used for further investigation of a questionable area in a screening.

## 185 Purchase Transmission Elec. Microscope

\$250,000

The electron microscope is used for visualizing and documenting subcellular particles of parasites, bacteria and viruses.

### 186 Purchase Plot Combine

\$130,000

A plot combine is needed to harvest wheat and barley research plots, to weigh the samples on the go, and to assess grain quality on the go.

## 187 Purchase Ovarian Cancer Ultrasound

\$150,000

The Ovarian Cancer Ultrasound is part of an off-site Imaging Center for Women. It will provide subspecialized radiology imaging for women in the community, increasing their longevity.

#### 188 Purchase Plant/Microbial Growth Chamber

\$100.000

Environmentally-controlled cabinets (even, of walk-in size) for growing healthy and infected plants.

### 189 Construct HES Facilities

\$23,285,000

The proposed facilities will contain instructional and research laboratory space including textile laboratories, food science and basic science laboratories, clinical space, display space for student work and faculty/staff offices.

### 190 Purchase Digital Radiology Unit

\$550,000

The digital radiography unit will be for computerized filmless plain or general images. This will be part of a subspecialized radiology Imaging Center for women.

### 191 Purchase Quadrapole Mass Spec.

\$360,000

This LC-MS-MS technology will enable highly sensitive [parts per trillion] detection and confirmation of the presence of numerous drugs in equine plasma.

Total Budget

#### 192 Purchase Two PACS Workstations

\$240,000

The PACS workstations are part of an Imaging Center for women and are used to interpret the images.

### 193 Purchase Combustion Analyzer Systems

\$115,000

The combustion laboratory analytical capabilities will be extended and enhanced with the addition of a sulfur analyzer and a nitrogen analyzer. The measurement of sulfur is needed for feed materials due to the nutritional impact that occurs when sulfur is present. The nitrogen analyzer will improve efficiency and reduce operating costs by replacing an older unit in the laboratory.

## 194 Purchase Radiology Information Center

\$300.000

The Radiology Information Center is a computerized information system specifically designed for radiology patient care. The system will be part of an Imaging Center for women.

### 195 Construct UK Paducah Engineering Research Center

\$1,230,000

The Engineering Extended Campus in Paducah was established as the first visible presence of University of Kentucky academic and research programs in the Purchase Area in far western Kentucky. These programs and 8 engineering faculty members are housed in space on the PCC campus. There was no space designated for research in the original PCC plans, yet the UK faculty have all developed research activities consistent with their requirements to obtain tenure. This facility will provide laboratory research space related to the areas of expertise of the mechanical engineering and chemical engineering faculty members in Paducah, and will provide undergraduate engineering students the chance to participate in these research activities.

#### 196 Purchase Plot Combine

\$125,000

The plot combine has the capability for harvesting small plots of all row crops and for automatically determining grain moisture contents, test weights, and grain yields during the harvesting process.

## 197 Purchase Plant/Microbial Growth Chamber

\$100,000

Environmentally-controlled cabinets (even, of walk-in size) for growing healthy and infected plants.

# 198 Purchase DNA Chip Analysis System

\$160,000

This equipment will accept DNA or tissue from an individual and analyze a wide array of DNA sequences for presence or absence.

### 199 Purchase Dual Photon Confocal Microscope

\$300,000

The dual photon laser-scanning confocal microscope would be used for fluorescence imaging of thick cellular preparations.

# 200 Purchase Bioinformatics Analysis Equipment

\$150,000

The purchase of a Bioinformatics Analysis Equipment for the College of Medicine.

# 201 Construct KY Transportation Center Building

\$28,122,000\*

The Kentucky Transportation Center (KTC) is currently occupying space in four different buildings on campus. Until recently, one unit was forced to lease space off campus. The new building will consolidate all KTC functions into one location here in the heart of the campus. It will accommodate future growth for the organization and not require the KTC to compete with

Total Budget

Civil Engineering for space in the Raymond Building and other departments in the engineering complex.

\*Total budget includes Restricted Funds of \$2,000,000; Federal Funds of \$2,500,000; and Other-Private Funds of \$1.500.000.

### 202 Purchase Forage Harvester System

\$150,000

This is a self-propelled machine designed specifically for grassland research.

#### 203 Purchase 3-D Ultrasound Machine

\$200,000

This 3-D Ultrasound equipment will allow the department of OB/GYN to remain competitive in the ultrasound arena.

### 204 Purchase Plot Combine w/ Weighing System

\$135.000

The plot combine has the capability for harvesting small plots of all row crops and for automatically determining grain moisture contents, test weights, and grain yields during the harvesting process.

## 205 Purchase Confocal Microscope

\$346,000

This is a sophisticated video imaging system with advanced optics and a computer that translates the optical information into digital information, which it then can analyze.

## 206 Purchase 2D-Electrophoresis Set-up

\$238,000

Two-dimensional electrophoresis has now become the standard technique for the separation of the complex mixture of proteins found within cells. In order to fully understand the causes and effects of disease, it is critical that altered proteins are identified. With this powerful tool, researchers will be able to positively identify the proteins altered in age-related disorders that will lead to the improvement of future therapies.

# 207 Purchase Transmission Elec. Microscope

\$375,000

This equipment is used to visual submicroscopic structures of plants and other biological organisms. The equipment will be used in a number of types of studies including basic plant biology, plant pathology (plant diseases) and plant improvement research.

#### 208 Purchase DNA Sequencer

\$420,000

Ninety-six capillary capacity sequencer; an integrated system of multiple robots.

#### 209 Purchase Fluorescent Scope and Auto Metophase

\$120,000

This system will enhance data collection for molecular and clinical cytogenetics by providing a second workstation.

## 210 Purchase High Resolution Phosphor Imager

\$235,000

The purchase of a High Resolution Phosphor Imager for the College of Medicine.

### 211 Purchase Axiovision

\$100,000

Digital-imaging software.

# 212 Upgrade Sound System for the Singletary Center

\$1,000,000

This project will upgrade the sound system in the auditorium of the Singletary Center, providing a state-of-the-art system for the University's premier performing arts facility.

### 213 Purchase Camera for Transmission/Scanning

\$105,000

Digital imaging will enhance our electron microscopy and other microscopic imaging by eliminating the time, reagent use and disposal, and film expense of photographic imaging.

Total Budget

### 214 Purchase Ultracentrifuge

\$110.000

This equipment will provide the means to purify infectious agents of horses. It will be most useful for the purification of viruses.

### 215 Renovate Dentistry Class Lab

\$1,475,000

This project will renovate the Dentistry Class Lab in the Dentistry Building. The lab is approximately 4,500 net square feet.

### 216 Purchase Confocal Microscope

\$300,000

Confocal microscopy (CFM) is a powerful tool for studying the subcellular distribution of proteins and infectious agents in living cells by using fluorescent probes.

### 217 Purchase Mass Spectrometer

\$450.000

This equipment permits the detection of protein mass. It will be used for the identification of proteins and how they change in human disease.

#### 218 Purchase Robotics Pipetter System

\$104,000

This equipment will employ robotics to transfer precise volumes of liquid from tubes to wells in polystrene trays, and the reverse.

# 219 Purchase DNA Sequencer Machine

\$125,000

To purchase a DNA Sequence Machine for the College of Medicine.

## 220 Renovate King Library South - 1962 section

\$21,744,000

The King Library South 1962 addition needs renovation in order to be utilized as effective library space. Renovation of this building will combine the 5 separate libraries that currently constitute the Science/Engineering collection into one central facility. Upon completion, space currently occupied by the libraries in Anderson, C/P, and Patterson would return to the academic departments.

## 221 Purchase Mouse PET Scanner

\$385,000

To purchase a Mouse PET Scanner for the College of Medicine.

#### 222 Purchase Real Time PCR Machine

\$165,000

Real Time Polymerase Chain Reaction (PCR) Instrument is used to analyze and quantitate the presence of DNA and RNA in applications of molecular biology, immunology, bacterial pathogenesis, tumor immunology, and molecular genetics.

## 223 Purchase Genesis Workstation

\$425,000

High throughput robotic workstation for automated and hands-off performance of complex molecular biology protocols.

## 224 Purchase DNA Sequencer

\$420,000

Ninety-six capillary capacity sequencer; an integrated system of multiple robots.

## 225 Purchase Microscope with Imaging

\$135,000

Used to view and analyze tissue samplings for immunofluorescence and standard microhistology. This also allows for the manipulation of digital images at work-stations in the faculty laboratories. This process allows the researcher enhanced processes in the analysis of their data.

## 226 Purchase ORCA Robot-on-Rail

\$100.000

This robotic arm transfers samples from one scientific instrument to another, allowing 24-hour personnel-free completion of long/complex protocols.

Total Budget

# 227 Purchase Behav. Monitor. & Analysis Sys.

\$165.000

This equipment will be used to evaluate the cognitive abilities of experimental animals.

### 228 Purchase Information & Decision Management Station

\$100,000

High-end computer hardware and software combination that allows users to access and merge data from a variety of sources and dynamically interact with the data, putting advanced statistical capabilities into the hands of novices.

## 229 Purchase Chain Reaction Analyzer

\$150,000

This equipment allows amplification of DNA samples.

### 230 Purchase Digital Nanochip Enzyme Seguencing Mach

\$500,000

This instrument uses nanotechnology processes, often on specially-designed silicon chips to sequence DNA from samples as small as one molecule.

### 231 Purchase Nanochip System

\$350,000

This instrument uses nanotechnology processes, often on specially-designed silicon chips, to perform a wide variety of chemical and enzymatic reactions.

#### 232 Purchase Compressed Video-Hazard

\$141,000

This equipment is a telephone line mediated video distance education send-and-receive system to serve classes of up to 30 students. It is compatible with statewide distance education technology.

### 233 Purchase Multiplex QPRC System

\$100.000

This instrument is a high-throughput, real-time, polymerase chain reaction system that detects and quantitates nucleic acid sequences.

# 234 Purchase Electron Microscope

\$355,000

This instrument is used to study the brain and other tissues at extremely high magnification enabling the investigator to study intracellular changes.

### 235 Purchase RevPrep Orbit Workstation

\$100,000

This instrument is dedicated to one protocol, purifying DNA from organic samples.

## 236 Purchase MegaPix2

\$300,000

Ultra-high-throughput robotic workstation for molecular biology protocols.

## 237 Purchase GelPix

\$300,000

High-throughput robotic instrument for viewing and excising organic samples from gels, a process ubiquitous in molecular biology.

## 238 Purchase Typhoon Variable Mode Imager

\$118,000

A highly sensitive imaging instrument for maximum data quality recovery in a high-throughput system for DNA, RNA and protein samples.

# 239 Purchase Flow Cytometry Lab Equipment

\$425,000

This equipment is a dual laser fluorescence activated cell sorter with capabilities of analysis and sorting of cells for basic and clinical research and a single laser fluorescence cell analyzer with enhanced capability of DNA analysis.

## 240 Renovate Research Space in Med Science

\$12,400,000

This project will renovate approximately 42,000 gross square feet of research space in the Medical Sciences Building.

Total Budget

### 241 Renovate Cooper House

\$1.600.000

This Project will renovate the Cooper House. The facility is approximately 7,669 gross square feet. The renovation will include offices, conference rooms, support spaces, and the addition of an elevator.

#### 242 Purchase Inverted Scope

\$110,000

The inverted phase scope allows for phase contract and for fluorescence microscopy of fixed cells and also for microscopy of living cells in real time.

# 243 Purchase Laser Confocal Microscope

\$312,000

This equipment is a laser confocal microscope that will be used in molecular biology imaging of live cells.

### 244 Purchase Multiphoton Scanning Microscope

\$300,000

This microscope allows a level of intracellular resolution that is not possible with traditional microscopy.

# 245 Purchase Open MRI Unit

\$1,000,000

Magnetic Resonance Imaging (MRI) is a diagnostic procedure that produces detailed images of specific areas within the body. MRI is a state-of-the-art technique that allows doctors to see inside the human body in remarkable detail without using x-ray.

## 246 Purchase Patient Classification Equip.

\$260,000

This equipment is server based and is used for electronic charting, electronic billing, and scheduling and will help met the needs of rural areas.

### 247 Purchase Sequence Detection System

\$110,000

This equipment will provide researchers with real-time polymorise chain reaction analysis.

## 248 Purchase Ultracentrifuge

\$117,000

This equipment will be used to purify DNA, RNA, and proteins to be used in the analysis of regulation of gene expression and the effects of physiological manipulations on proteins.

#### 249 Purchase X-ray Defractometer

\$700.000

The X-ray diffractometer is a high powered X-ray source used for experimentation in X-ray crystallography.

### 250 Purchase Compact Shelving for Med Center Library

\$550,000

Purchase Compact Shelving for Med Center Library.

## 251 Purchase Fiber Channel Network System

\$200,000

This is to increase the data network speed in part of Patterson Office Tower to facilitate the activities of faculty involved in high-end computations. This will augment the robustness and reliability of the server disk systems in Mathematical Sciences and allow the storage system to be virtualized. It will (i) permit us to build more robust failover servers, (ii) allow for the centralization of both to disk and to tape backups, and (iii) provide a cleaner, more organized, and hence more economical approach to providing the disk resources required for internal Math Sciences applications as well as our outreach projects such as MathClass, the KDE project, and support for grants such as AMSP.

### 252 Purchase Linear Ion Trap Mass Spectrometer

\$280,000

lon mass spectrometers are used to identify components in mixtures. This instrument will be placed within the mass spectrometry center in ASTeCC and as such it will benefit a wide range of research activities on campus.

Total Budget

## 253 Purchase 800 MHz NMR Spectrometer

\$2,600,000

This is a state-of-the-art spectrometer that will allow structural characterization of proteins and other macromolecules. Additionally, it provides higher resolution spectra.

### 254 Purchase Mass Spectrometer

\$125,000

This the purchase of a research instrument that separates substances according to size, and resolves atoms within a substance.

### 255 Construct Environmental Institute

\$17,392,000

The Environmental Institute would enable the University of Kentucky to draw together an impressive array of unique programs, researchers, and students to concentrate on the area of environmental studies. This building will house units critical to creating a multidisciplinary approach to environmental studies and education; included would be the newly established Tracy Farmer Center for the Environment, the Appalachian Center, the Martin School of Public Policy and Administration, and the Kentucky Water Resources Research Institute.

### 256 Expand/Renovate CPST Facility

\$3,500,000

This project will expand and renovate the existing CPST facility located on the Coldstream Research Campus. The space will consist of research space, offices, and support space.

# 257 Purchase Luminex System

\$100,000

A Luminex is a lob instrument that will quantify up to 100 different analytes (or substances) in a single sample.

### 258 Purchase Oxymax Integrated Metabolism System

\$160.000

This equipment in an intergrated system that measures animal activity, feeding, drinking urine collection, and open circuit indirect calorimetry.

# 259 Purchase Elemental Analysis System

\$200,000

This system permits qualitative and quantitative elemental analysis of scanning electron microscope samples in the Electron Microscopy Facility.

## 260 Purchase Reactive Ion Etching

\$180,000

The Reactive Ion Etching machine is used for etching thin solid films deposited on a silicon wafer or other substrate.

### 261 Purchase Focused Ion Milling/Patterning

\$400,000

This machine is used for defining nanoscale patterns on a silicon wafer.

### 262 Purchase Multi-Scanning Probe Microscope

\$200.000

This machine is used for inspection and metrology of nanoscale features on integrated circuits and other microelectronic and nanoelectoroic devices.

### 263 Purchase Field-Emmission SEM w/e-beam

\$420,000

This machine is used for non contact inspection and lithographic pattering of nanostructures.

## 264 Purchase Laser Digitizer

\$125,000

A Laser Digitizer is an instrument that measures an existing part, know as reverse engineering.

### 265 Purchase Stereolithography Printer/SLA

\$350,000

A Sterolithography Printer/SLA is a machine that builds models or prototypes rapidly.

Total Budget

# 266 Purchase Z810 Z-Corp Machine

\$200,000

A Z-Corp machine is a machine that builds concept models or prototypes rapidly.

## 267 Purchase Sinterstation Hi Q SLS System

\$250,000

The Sinterstation is a machine that creates models or prototypes.

## 268 Purchase 4-Axis Machining Center

\$125,000

A 4-Axis Machine is a computer (CNC) driven machine that produces metal parts.

## 269 Purchase Blow Molding Machine

\$150,000

A Blow Molding Machine is a production machine for molding plastic components and prototype parts.

### 270 Purchase High Temp Tension/Torsion Testing Machine

\$500.000

A High Temperature Tension/Torsion Testing Machine tests and characterize large deformation of advanced materials under different mechanical and thermal loading conditions.

# 271 Purchase Compact Shelving-Fine Arts Library

\$500,000

This is the purchase of compact shelving for the Fine Arts Library. Compact shelving stores more volumes per square feet of floor space.

### 272 Purchase High Resolution Imaging System

\$132,000

This equipment is a high frequency ultrasound machine that measures the blood vessels in mice in order to study abdominal aortic aneurysms and cardiac function.

### 273 Purchase Laser Capture Microdissection System

\$242,000

The instrument increases the sensitivity and accuracy of molecular studies of cells by focusing the analysis of pure populations of specific cell types instead of whole tissues or mixed cell populations. Identifying molecular changes at the cellular level in specific disease types such as Alzheimer's disease would identify potential therapeutic targets to treat the diseases.

#### 274 Purchase HPLC-Tandem Mass Spectrophotometer

\$275.000

This instrument separates, identifies, and quantifies proteins present in samples of interest. The instrument can be used to identify differences in protein levels in very small samples of tissue from Alzheimer's disease and control brains. Because it uses 1/5 of the material necessary for other protein assays, it can also be used to study changes in neuron cultures that have been treated with insults associated with AD. This instrument would also be useful in the measurement of differences in proteins in cerebrospinal fluid that may serve as diagnostic markers in Alzheimer's disease.

## 275 Purchase Laboratory Environ. Monitoring System

\$112,000

This system monitors all of the critical pieces of equipment within the Center on Aging and signals a central control module when equipment such as refrigerators, freezers, Ultra-Low Freezers, cold rooms, stability chambers, incubators, and animal rooms begin to fail from predetermined limits. It will ensure that the building meets the federal regulatory requirements.

### 276 Purchase 7T Small Animal High-Field MR Imager

\$1,500,000

A small-bore, high field MR imager is needed to have a state-of-the-art facility for small animals, imaging for neuroscience, radiotherapy and cardivascular research. Using human imagers severely limits the image spatial and temporal resolution, placing researchers at a competitive disadvantage.

Total Budget

#### 277 Purchase PET/CT Scanner

\$2,100,000

A combined PET/CT fusion imager is needed for advanced research in multiple areas such as cancer and neuroscience. This imager would allow the simultaneous acquisition of anatomical and functional images from the CT and PET.

#### 278 Purchase Small Animal Scanner

\$1,200,000

A separate small animal PET scanner is needed to fully support basic research in areas such as neuroscience and cancer research. Using the existing whole-body human MRI scanner does not allow the desired spatial resolution for imaging of small animals (rats and mice).

## 279 Purchase Gradient Insert

\$200,000

A removable gradient insert will significantly augment the capability for the most advanced functional magnetic resonance imaging experiments. Additionally, it would improve the capabilities for small-field-of-view imaging of rodents and other small animals.

### 280 Purchase Spectroscopy Package

\$150,000

The multi-nuclear spectroscopy package is required for magnetic resonance spectroscopy other than protons. It is crucial for much of the non-invasive cancer research.

### 281 Purchase Plot Combine with Weighing System

\$220,000

This equipment is used to measure the yield of various crops, such as corn, soybeans, and wheat, of importance to Kentucky. As such, the equipment will be used in a number of types of studies including crop management and crop breeding research.

### 282 Purchase HPLC System

\$120,000

This equipment is used to identify and measure various components in a variety of samples. For example, we would use the equipment to measure the amounts of chemicals, either naturally occurring or introduced through bioengineering, present in plant samples. It can also be used to monitor environmental contaminants in soils and water samples.

### 283 Purchase Transmission Elec. Microscope

\$375,000

This is a transmission electron microscope with a five-axes, computer-controlled Compustage; magnification to 510,000 X; autofocus; automatic contrast control; auto stigmatism; 56-exposure photographic recording; digital camera system; Condonics and laser printers; fully integrated microprocessor control.

#### 284 Purchase Growth Chamber

\$150,000

This equipment is used to create reproducible and particular environmental conditions for plant growth, or other, studies. The equipment will be used in a number of types of studies including basic plant biology, plant pathology (plant diseases) and plant improvement research.

## 285 Purchase ICP/AES Mass Spectrophotometer

\$150,000

Nutritional deficiencies due to failure to receive adequate intake of microelements, particular selenium is associated with serious health problems in livestock, especially cattle in Kentucky. A state-of-the-art ICP/AES mass spectrophotometer will provide the capability for confirming these deficiencies when suspected in Kentucky Livestock.

### 286 Purchase Robotic Platform

\$120,000

This instrument will make it possible to process and analyze large numbers of samples (blood, urine, factionated effluents, cell culture media, etc.) for both population-based studies and large-scale laboratory research projects.

Total Budget

### 287 Purchase MSQ Mass Spectrometric Detector

\$120,000

This instrument allows analysis of ionic and polar compounds separated by high performance liquid chromatography. The instrument permits convenient metabolic profiling of various tissue samples and is, therefore, useful for metabolomics studies.

### 288 Purchase Upgrade for Scanner System

\$500,000

This is an upgrade for the high field clear bore hybrid magnetic resonance imaging and spectroscopy system for studies of humans and large animals.

## 289 Purchase Comm Infrastructure in Young Library

\$1,014,000

Upgrade the Communications Infrastructure in Young Library so that it can continue to provide more electronic resources as our students and faculty demand and deserve them, and so that it can provide better computers and supporting software to support access to these resources.

### 290 Construct Data Center

\$20,000,000

This project constructs a new merged data center of approximately 30,000 GSF to replace the existing campus data centers currently located in McVey Hall and the basement of the Hospital. The existing data centers have insufficient space, electrical power (both normal and emergency) and cooling for the University's supercomputer, mainframe, and servers.

## 291 Install Med. Center Chilled Water Loop

\$700,000

Installed chilled water supply and return piping from Huguelet Drive to the Combs Building, from Huguelet Drive to the Roach Building, from the Roach Building to the Medical Center and connect to the existing 12" chilled water piping system within the Medical Center. This project is necessary to reduce the connected load on Cooling Plant #3 and provide backup cooling for the Medical Center Building from the Cooling #1 and #2 System.

#### 292 Renovate Central Vivarium

\$3,000,000\*

This project will renovate the cage washing area in the vivarium in the Central DLAR Facility. \*Total budget includes Federal Funds of \$1,500,000.

### 293 Replace Air Handling Units in Research #1

\$1,935,000

This project will replace the air handling units on the roof of Research #1 Building.

# 294 Purchase Biomek FX Liquid Handling Robot

\$300,000

The AGTC provides high-throughput genetic analyses of plants, animals, microbes and humans. The facility keeps the University of Kentucky at the forefront of genetics research. Approximately 300,000 samples are analyzed per year.

## 295 Upgrade AHUs - Med Ctr Campus

\$2,000,000

Upgrade existing air handling units at the Medical Center complex with new units with new DDC contrrols.

### 296 Purchase Two CT Scanners

\$1,300,000

This equipment will provide clinical subspecialized radiology services to accommodate the steadily increasing outpatient demand.

#### 2008-2010

# Acquire and Renovate a Facility for Design

\$17,000,000

This project will acquire and renovate a building for the College of Design. The facility will be a minimum of 95,000 gross square feet (60,000 net square feet) and will be located within short walking distance from campus.

### **Capital Renewal Maintenance Pool Phase 2**

\$28.684.000

This project is to establish a pool of funds for 1)needed maintenance projects not funded in the operating budget and therefor deferred to a future period; and 2)facility systems that have failed and that have not exceeded 90 percent of their life expectance.

### **Construct Clinical Neurodegerative Center**

\$11,580,000

This project will construct a new Clinical Neurodegerative Center. This facility will be part of the University of Kentucky Center on Aging and support the clinical care of neurodegenerative diseases.

### **Construct Distance Education and Outreach Center**

\$87,676,000

Construction of a consolidated instructional support, media distribution and outreach center that would unify efforts in distributed education, digital media development, classroom support services, faculty development, student media laboratories, economic development, public radio, public relations and economic extension. The facility would consolidate resources and efforts critical to acquiring of education and outreach, allowing improvement of content creation and delivery of materials and programs for development, providing a digital media center for faculty, staff and students and the resources to accomplish these goals.

#### **Construct School of Music Building**

\$74,712,000

Construct a 102,000 square foot new building for the School of Music and renovate the existing Fine Arts Building, also for the School of Music. The School of Music was identified as a Tier 2 area of investment and has improved markedly since that designation. Enrollments have doubled since the current building was designed and needs have obviously changed enormously. Each and every member of the faculty (40 FTE) is now extremely productive and an inordinate number have national or international reputations.

### **Construct Student Astronomical Observatory**

\$1,875,000

Construct an astronomical observatory, with optical telescopes, to be used by students at UK and the surrounding community.

### Improve Accessibility Project Pool

\$400,000

This project will consist of a pool of funds used to upgrade accessibility issues throughout the campus. The funds will be used on an as needed basis for renovation projects requiring accessibility upgrades. Some specific projects may be established to address complaints, or other accessibility issues.

### Improve Life Safety, Project Pool

\$1,402,000

This project will involve various types of measures in existing buildings including modifications to spaces, equipment or building systems, and materials for the purpose of minimizing risks to human health and safety.

# Improve Moloney Building, Capital Renewal

\$1,150,000

Capital renewal of Moloney Building, to include such items as chiller replacement, roof replacement, replacement of all toilet partitions and plumbing fixtures and improvement of exterior lighting.

#### Install Chilled Water Loop Connection II

\$1,055,000

This project will install chilled water pipe additions to facilitate central chilled water system operation. The project will include system piping additions and related connections for new and existing buildings. This project includes piping for chilled water mains to insure effectiveness of system modifications over the past two years.

### **Install Chilled Water Pipe Loop Connect**

\$1,200,000

Install chilled water pipe additions to facilitate central chilled water system operation. Project will include system piping additions and related connections for new and existing buildings. This project includes piping for chilled water mains to insure effectiveness of system modifications over the past two years. This Central Chilled Water System of the University of Kentucky has proved to be very economical to maintain and operate. It reduces the construction cost of new buildings by eliminating chiller and cooling tower redundancy in buildings and reduces the operational cost of new and existing buildings by providing the ability to operate larger and higher efficiency units at central location.

# **Install Cooling Secondary Pumping II**

\$1,700,000

Install chilled water pumps in various buildings. This project is to relieve an inadequate chilled water flow situation created by the addition of new buildings without upgrading the chilled water pumping and piping design. New buildings are being added with individual secondary pumping, requiring the addition of secondary pumping on existing individual buildings.

### Install Steam Line Columbia Av - University Dr

\$4,570,000

Install steam and condensate piping system in shallow trench with pits and necessary valves, traps, etc. as identified by the Steam Study Master Plan.

## Install Steam Line Dorm Complex - Com College

\$3,780,000

Install steam and condensate piping system in shallow trench with pits and necessary valves, etc. as identified by the Steam Study Master Plan.

#### Install Steam Line Limestone - Press Av

\$4,410,000

Install steam and condensate piping system in shallow trench with pits and necessary valves, traps, etc. as identified by the Steam Study Master Plan.

### Install Steam Line Memorial Col - Mines & Min

\$11,120,000

Install steam and condensate piping system in shallow trench with plus and necessary valves, traps, etc. as identified by the Steam Study Master Plan.

#### Renovate Administrative Space in Nursing Bldg

\$980,000

This project will renovate approximately 4,500 square feet of space in the Nursing Building. This space is currently used for administrative offices, support offices, and conference areas. This space will be renovated to include improved computer accessibility, lighting, and grouping of offices to better facilitate the students, visitors, and the administrative team.

### **Renovate Anderson Hall**

\$18,000,000

This project will upgrade and replace the HVAC, electrical, and communication systems in the Anderson Hall building. The total gross square footage is 95,000 of which 5,414 is classroom, 3,182 is class lab, 17,426 is office, 7,458 is study, 271 is special use, 1,406 is support facilities, and 42,707 is non-assignable.

#### Renovate Chemistry-Physics Building Phase I

\$17,500,000

Renovation of Chemistry-Physics Building Phase I is the first of a planned four phased renovation plan and will renovate approximately 62,000 GSF of the existing 245,347 GSF. This project will bring the renovated areas up to usable space for research, classrooms and offices.

# Renovate Education Space in the Seaton Center

\$3,365,000

This project will renovate approximately 11,000 net square feet of College of Education space in the Seaton Center. The renovation work will include a new gymnastics room, new classrooms, new ADA accessible entrance and elevator, and student study lounge.

### Renovate Lab & Support Space in Med Science

\$9,500,000

This project will renovate approximately 20,000 net square feet of labs in the Medical Sciences Building. The renovation will also upgrade offices, lab support space, and a classroom.

### Renovate Labs in Dental & Med Science Bldg

\$42,437,000

This project will renovate approximately 120,000 square feet of research space on the 3rd, 4th, 5th, & 6th floors of the Medical Sciences and Dental Building.

## Renovate Labs in the Sanders Brown Building

\$5,400,000

This project will renovate approximately 10,000 square feet of research space in the Sanders Brown Building.

### Renovate Research Space in Pharmacy, II

\$7,860,000

This project will complete a capital renewal renovation of approximately 23,000 gross square feet of existing research space in the Pharmacy Building. The work will include upgrades to systems and finishes that have exceeded their normal life expectancy.

# Renovate Research Space in Pharmacy, III

\$7,055,000

This project will renovate approximately 23,000 gross square feet of existing research space in the Pharmacy Building. The renovated space will include wet bench laboratories, offices, and research support space.

### **Renovate SECAT Building at Coldstream**

\$2,000,000

The Coldstream Research Campus anticipates that renovations will need to occur to fit-up / renovate spaces for commercial occupants leasing portions of the facility from the University. The University needs capital authority to quickly deal with space modifications / fit-up required for contracts with commercial and private companies locating at the Coldstream Research Campus In order for Coldstream Research Campus to be successful as a research and economic development enterprise, the University must have the flexibility to negotiate, sign, and implement contractual arrangements with private corporations in a very timely manner.

#### Repair Blacktop Phase II General Campus

\$750,000

Replacement of deteriorating blacktop of campus streets and parking lots. Campus blacktop surfaces and foundation materials require attention due to age and environmental damage.

### **Repair Concrete Phase II General Campus**

\$750,000

Replacement of damaged concrete including: walkways, curbs and handicapped ramps, plus installation of new walkways where dirt paths have developed. The repairing and replacing of concrete walkways, plus other concrete improvements, is for human safety and handicapped access.

# Repair HVAC System Erikson Hall

\$840,000

Provide HVAC to meet indoor air quality (IAQ) and comfort requirements from a central utility source. The current HVAC System is inadequate and must be upgraded to meet current air quality requirements.

#### Repair HVAC System Law Bldg.

\$1,830,000

Provide HVAC to meet indoor air quality (IAQ) and comfort requirements from a central utility source. The current HVAC System is inadequate and must be upgraded to meet current air quality requirements.

Total Budget

### Replace Air Handling Units in Dental Building

\$2,000,000

This project will replace the air handling units in the Dental Building.

### Replace Air Handling Units in Med Science Bldg

\$2,000,000

This project will replace the air handling units in the Medical Science Building.

## Replace Air Handling Units in Sanders Brown Bldg

\$1,500,000

This project will replace the air handling units in the Sanders Brown Building.

## Replace Alumni Gym HVAC

\$3,040,000

Provide HVAC to meet requirements indoor air quality (IAQ) and comfort requirements from a central utility source.

### Replace Elevator/Dumbwaiter in Dental Building

\$645,000

This project will replace the elevators and dumbwaiter in the Dental Building

### Replace Frazee Hall HVAC

\$1,395,000

Provide HVAC to meet requirements indoor air quality (IAQ) and comfort requirements from a central utility source.

## Replace Funkhouser Elect. Distrib. Sys.

\$1,000,000

Renovate the buildings electrical distribution system, including panels, wiring and devices. The electrical distribution system is antiquated and past life expectancy. Repair parts are no longer available.

### Replace High Voltage Wiring II

\$775,000

This project will replace 12KV medium voltage cables, ductbank, manholes, switches and associated infrastructure. Portions of the underground 12KV System on the Lexington Campus are 30 years old. These sections are beginning to deteriorate to the point of unplanned outages. This project will provide for the replacement of the older underground cables in the system.

#### Replace Kastle Hall Elect. Distrib. Sys.

\$600,000

This project will renovate the building's electrical distribution system, including panels, wiring and devices. The electrical distribution system is antiquated and past life expectancy. Repair parts are no longer available.

### Replace Master Clock and Bell System Phase II

\$1,000,000

This project will replace the centralized campus wide synchronized clock and bell system with controller in each building or clock. The existing system is a power line carrier system at end of its life. New computer and electronic equipment in the building absorbs the carrier signal and degrades performance of clock and bells.

# Replace Scovell Hall Elect. Distrib. Sys

\$1,000,000

This project will renovate the building's electrical distribution system, including panels, wiring and devices. The electrical distribution system is antiquated and past its life expectancy. Repair parts are no longer available.

#### Replace Steam and Condensate Pipe II

\$5,000,000

This project will replace central steam and condensate piping system. The Central Utilities Systems of the University of Kentucky have proven to be very economical to maintain and operate. It reduces the construction cost of new buildings by eliminating redundancy in buildings and reduces the operational cost of new and existing buildings by providing reliable and low cost energy alternatives at central locations.

### Replace Steam Line Dorm Complex - Univ. Dr.

\$2,210,000

Replace steam and condensate piping system in shallow trench with pits and necessary valves, traps, etc. as identified by the steam study master Plan.

### Replace Steam Line Frazee-Student Ctr. Add.

\$870,000

Replace steam and condensate piping system in shallow trench with pits and necessary valves, traps, etc. as identified by the Steam Study Master Plan.

### Replace Steam Line Good Barn - Hosp Dr Pit 2

\$3,000,000

Replace steam and condensate piping system in shallow trench with pits and necessary valves, traps, etc. as identified by the Steam Study Master Plan.

### Replace Steam Line Keeneland Holmes Nutter

\$1,180,000

Replace steam and condensate piping system in shallow trench with pits and necessary valves, traps, etc. as identified by the Steam Study Master Plan.

### **Replace Steam Line Nursing - Hunt Morgan**

\$1,105,000

Replace steam and condensate piping system in shall trench with pits and necessary valves, traps, etc. as identified by the Steam Study Master Plan.

## Sprinkle Scovell Hall - Life Safety

\$665,000

This project will sprinkle Scovell Hall. The purpose of this project is to minimize the risks to human health and safety.

### **Upgrade / Modify Coldstream Facilities**

\$10,000,000

The Coldstream Research Campus anticipates that its University owned facilities (roofs, roads, grounds, utilities, or other infrastructure elements) will require upgrading / modification to meet the needs of the Research Campus's commercial occupants lease property, facilities or space from the University. The University needs capital authority to quickly deal with space and infrastructure upgrades or modifications required for contracts with commercial and private companies locating to Coldstream. In order for Coldstream to be successful as a research and economic development enterprise, the University must have the flexibility to negotiate, sign, and implement contractual arrangements with private corporations in a very timely manner.

### **Upgrade AHUs II - Med Ctr Campus**

\$2,385,000

Upgrade existing air handling units at the Medical Center complex with new units with new DDC controls.

# **Upgrade DV Terrell Bldg HVAC**

\$850,000

Provide HVAC to meet indoor air quality (IAQ) and comfort requirements from a central utility source. The current HVAC System is inadequate and must be upgraded to meet current air quality requirements.

#### Upgrade Electrical Distribution in Dental Bldg

\$1,110,000

This project will upgrade the electrical distribution system in the Dental Building with new electrical components.

### **Upgrade Fume Hood in Combs Building-Life Safety**

\$2,800,000

This project will upgrade the fume hood and ventilation system of the Combs Building to modern laboratory standards. The work will include upgrades to the air handling units (AHU), replacement of the temperature and volume controls, upgrade AHU mixing plenums and dampers, and installation of variable speed controls for the fan motors.

### **Upgrade Fume Hoods - Life Safety**

\$4.556.000

This project will involve various types of measures in existing buildings including modifications to spaces, equipment or building systems, and materials including ventilation improvements in chemical areas for the purpose of minimizing risks to human health and safety.

## **Upgrade HVAC & Controls in Med Plaza**

\$475,000

This project will upgrade the HVAC system and replace the electronic controls in the Med Plaza Building.

### **Upgrade Medical Center Heating Plant**

\$4,170,000

This project will replace auxiliary equipment that supports boiler operation for steam production as identified in the Steam Study Master Plan.

## **Upgrade Mineral Industries HVAC**

\$1,460,000

Provide HVAC to meet indoor air quality (IAQ) and comfort requirements from a central utility source. The current HVAC System is inadequate and must be upgraded to meet current air quality requirements.

### **Upgrade Pence Hall HVAC**

\$3,200,000

Provide HVAC to meet indoor air quality (IAQ) and comfort requirements from a central utility source. The current HVAC System is inadequate and must be upgraded to meet current air quality requirements.

### **Upgrade Scovell Hall HVAC**

\$3.900.000

Provide HVAC to meet indoor air quality (IAQ) and comfort requirements from a central utility source. The old sections of the building are presently heated by a low pressure steam radiator system and cooled by multi-DX AC units distributed around the perimeter. Air quality standards are not being met, creating the need for central HVAC units. Steam and chilled water are already in the building.

### Upgrade TP Cooper HVAC

\$2,565,000

Provide HVAC to meet air quality (IAQ) and comfort requirements from a central utility source. The current HVAC System is inadequate and must be upgraded to meet current air quality requirements.

### 2010-2012

### Capital Renewal Maintenance Pool Phase 3

\$14,478,000

This project is to establish a pool of funds for 1)needed maintenance projects not funded in the operating budget and therefor deferred to a future period; and 2)facility systems that have failed and that have not exceeded 90 percent of their life expectance.

# **Construct Bio-Behavioral Health Building**

\$27,225,000

This project will construct a 65,000 gross square feet Bio-Behavioral Health Building. The programs will include clinical offices, clinical exam rooms, clinical research, faculty offices, staff offices, and other program support space.

#### **Construct Health Science Academic Resources Ctr**

\$19,330,000

This project will construct a new 46,000 gross square feet classroom and student activities facility. The building will house class rooms, recreation space, study areas, sleep areas, test facilities, library, exercise rooms, faculty offices, administrative offices, and Academic Affairs offices.

# Improve Academic Tech Bldg, Capital Renewal

\$1,120,000

Capital renewal of the Academic Tech Building, to include such items as roof replacement, chiller replacement, upgrade of energy management system, replacement of toilet partitions, vinyl stair tread and risers, and refinishes all interior wood doors.

# Improve Accessibility Project Pool

\$400,000

This project will consist of a pool of funds used to upgrade accessibility issues throughout the campus. The funds will be used on an as needed basis for renovation projects requiring accessibility upgrades. Some specific projects may be established to address complaints, or other accessibility issues.

### Improve Life Safety, Project Pool

\$2,451,000

This project will involve various types of measures in existing buildings including modifications to spaces, equipment or building systems, and materials for the purpose of minimizing risks to human health and safety.

# **Install Chilled Water Storage Tank General**

\$12,500,000

Install chilled water storage system to facilitate central chilled water system operation. This project will include piping, pumping, valving, controls and connections to the existing system to address peak cooling - loads on very hot days.

## **Install Cooling Secondary Pumping III**

\$1.350.000

Install chilled water pumps in various buildings. This project is to relieve an inadequate chilled water flow situation created by the addition of new buildings without upgrading the chilled water pumping and piping design. New buildings are being added with individual secondary pumping, requiring the addition of secondary pumping on existing individual buildings.

# Renovate Chemistry-Physics Building Phase II

\$18,980,000

Renovation of Chemistry-Physics Building Phase II is the second of a planned four phased renovation plan and will renovate approximately 62,000 GSF of the existing 245,347 GSF. This project will bring the renovated areas up to usable space for research, classrooms and offices.

#### Renovate Lab & Support Space in Med Science

\$9,500,000

This project will renovate approximately 20,000 net square feet of labs in the Medical Sciences Building. The renovation will also upgrade offices, lab support space, and a classroom.

# **Renovate SECAT Building at Coldstream**

\$2,000,000

The Coldstream Research Campus anticipates that renovations will need to occur to fit-up / renovate spaces for commercial occupants leasing portions of the facility from the University. The University needs capital authority to quickly deal with space modifications / fit-up required for contracts with commercial and private companies locating at the Coldstream Research Campus In order for Coldstream Research Campus to be successful as a research and economic development enterprise, the University must have the flexibility to negotiate, sign, and implement contractual arrangements with private corporations in a very timely manner.

# Repair Blacktop Phase III General Campus

\$750,000

Replacement of deteriorating blacktop of campus streets and parking lots. Campus blacktop surfaces and foundation materials require attention due to age and environmental damage.

# **Repair Concrete Phase III General Campus**

\$750,000

Replacement of damaged concrete including: walkways, curbs and handicapped ramps, plus installation of new walkways where dirt paths have developed. The repairing and replacing of concrete walkways, plus other concrete improvements, is for human safety and handicapped access.

# Replace Air Handling Units in Nursing Building

\$1,410,000

This project will upgrade the HVAC system located in the Nursing Building. The work will include installation of new air handling units (AHU), replacement of the temperature and volume controls, upgrade AHU mixing plenums and dampers, and installation of variable speed controls for the fan motors.

### Replace High Voltage Wiring III

\$775,000

This project will replace 12KV medium voltage cables, ductbank, manholes, switches and associated infrastructure. Portions of the underground 12KV System on the Lexington Campus are 30 years old. These sections are beginning to deteriorate to the point of unplanned outages. This project will provide for the replacement of the older underground cables in the system.

## Replace Steam and Condensate Pipe III

\$5,000,000

Replace central steam and condensate piping system. The Central Utilities Systems of the University of Kentucky have proven to be very economical to maintain and operate. It reduces the construction cost of new buildings by eliminating redundancy in buildings and reduces the operational cost of new and existing buildings by providing reliable and low cost energy alternatives at central locations.

### Replace Transportation Bldg HVAC

\$2,532,000

This project will replace the Transportation Building HVAC system. The HVAC system is a two pipe system fed by a boiler and a direct expansion cooling system. There is a supply duct system with a defunct Variable Air Volume system.

#### Sprinkle Buildings - Life Safety

\$8,510,000

This project will sprinkle a prioritized list of buildings on the Lexington Campus. The purpose of this project is to minimize the risks to human health and safety.

#### **Upgrade / Modify Coldstream Facilities**

\$10,000,000

The Coldstream Research Campus anticipates that its University owned facilities (roofs, roads, grounds, utilities, or other infrastructure elements) will require upgrading / modification to meet the needs of the Research Campus's commercial occupants lease property, facilities or space from the University. The University needs capital authority to quickly deal with space

and infrastructure upgrades or modifications required for contracts with commercial and private companies locating to Coldstream. In order for Coldstream to be successful as a research and economic development enterprise, the University must have the flexibility to negotiate, sign, and implement contractual arrangements with private corporations in a very timely manner.

#### **Upgrade Dimmock Animal Path HVAC**

\$3,340,000

Provide HVAC to meet requirements indoor air quality (IAQ) and comfort requirements from a central utility source. The current HVAC System is inadequate and must be upgraded to meet current air quality requirements.

# **Upgrade Electrical Distribution in Med Science**

\$1,760,000

This project will include the replacement of all switchgear, vertical risers, panels, and horizontal circuits throughout the Medical Science Building. Included will be the replacement of conduit, wiring, circuit breakers, distribution panels, outlets, and switches.

#### \*Notes

- Unless otherwise indicated, the total budget would be financed from the state General Fund (cash or bonds).
- Priority rankings were required to be assigned only to those projects proposed for 2006-08; projects for 2008-10 and 2010-12 are listed in alphabetical order.
- Descriptions are as provided in the "Brief Description and Justification" field of the agency's capital plan submission.

#### UNIVERSITY OF KENTUCKY

# **Proposed Projects NOT Involving the State General Fund**

Project Title / Description Total Budget Source(s)

# 2006-2008

Acquire Land \$15,000,000 RF

This project will allow land acquisition in accordance with the University's Physical Development Plan. Authorization of this project will allow the University to purchase properties within the proposed boundaries of the University as such properties become available.

#### **Construct Alumni Drive Roundabouts**

\$2,630,000 RF

Construction of three Alumni Drive Roundabouts to ease traffic congestion on a heavily traveled University owned road at the following locations.

- University Drive
- Commonwealth Drive
- College Way

#### **Construct Commonwealth Stadium Suite Addition**

\$2.300.000

RF

Project to add four (4) viewing suites (two in each end zone) to the existing suite area at Commonwealth Stadium. Each suite would have the capacity of forty-eight (48) people.

### **Construct Hagan Baseball Clubhouse**

\$4,000,000

AB

Construct Locker/Shower/Player lounge, coaches and support staff offices for Baseball program, located adjacent to the current Baseball playing field. Construct indoor fielding/hitting area attached to support facilities

# Construct Horticultural Research & Ed. Facility

\$1,600,000

RF

Expanded plant science technology will be a major contribution to economic expansion in the Commonwealth. The Horticultural Research and Education Center at South Farm is the key component in the Statewide plan to develop research/extension infrastructure in support of new and existing horticultural industries. The programs through this facility will explore, develop, evaluate, demonstrate, and communicate horticultural crop opportunities through innovative research and educational programs that enhance diversification, profitability, and sustainability of Kentucky farms and landscapes. It will become UK's most visible commitment to enhancing the viability of non-traditional enterprises and family farms.

# **Construct Multi-Care Clinic Building**

\$28,452,000

RF

This project will construct a new facility to house multi-use physician office, practice, and procedural/treatment areas. The new facility will be constructed in the east-side area of Lexington.

# **Construct New Alumni Center**

\$17,344,000

OT-P

The project is a new alumni center of approximately 32,000 GSF that would provide facilities on campus to accommodate meetings, conferences, classes, luncheons, receptions, banquets and other events for up to 500 people for the University's colleges, faculty, staff, students and alumni.

#### **Construct New Housing**

\$71,420,000

AΒ

To request authorization to construct new housing. Total new construction will include parking and service facilities for approximately 800 additional spaces.

#### **Construct Parking Structure - Central Campus**

\$25,139,000

AB

The University's Physical Development Plan calls for seven new parking structures on the campus by 2020. This project would construct an 1,000 space parking structure containing approximately 320,000 gross square feet.

Total Budget

Source(s)

# **Construct Parking Structure - North Campus**

\$25.304.000

AB

The University's Physical Development Plan calls for seven new parking structures on campus by 2020. This project would construct an 1,500 space parking structure containing approximately 500,000 gross square feet.

#### Construct Police, Parking & Transportation Bldg

\$10,426,000

RF

The UK Police and Parking and Transportation departments currently are housed in an old building that was not designed for office space. It is functionally inefficient and only part of the Parking department's space is accessible to the handicapped. UK Police has special and increasing need for space that can accommodate high tech equipment.

### **Construct Track and Field Facility**

\$7,139,000

AB

Construct new Track and Field Facility, with locker/showers and storage for team use, and concession/rest room facilities for spectators.

#### **Construct University Conference Center**

\$24,233,000

 $\mathsf{RF}$ 

Construction of a new multi-purpose building consisting of offices, flexible conferencing spaces, classrooms and related space for the Japanese Saturday School, and supporting infrastructure. The 40,000 square foot space will provide a contemporary venue for teaching, information transfer, economic development and lifelong learning.

#### **Construct University Press Facility**

\$2,950,000

AΒ

This project will construct a 25,000 gross square feet facility for the University Press. The facility will consist of offices, processing rooms, and warehouse space.

## **Construct University Student Center**

\$88,776,000

RF/AB

The original submission was to build a new "stand-alone" University/Student Center that would serve as the central hub/gathering place for the University (perhaps near the WT Young Library to be consistent with the intended shift of campus in that direction). Recently, however, a discussion has ensued regarding the movement of campus toward downtown. Consequently, this proposal is currently under revision and will most likely incorporate a renovation of the existing Student Center as well as an addition to it. Regardless, the overriding need remains the same: to expand our facilities that support the social, cultural and recreational opportunities for students and the campus. For example, the campus is in critical need of new/expanded state-of-the-art meeting & performance space and conference & dining facilities.

#### **Expand Arboretum Visitor Center**

\$2,870,000

OT-P

This project will construct a 7,875 GSF addition to the existing Arboretum Visitor Center's 3,000 GSF. This expansion would contain a gift shop, offices and plant resource room.

# **Expand Memorial Coliseum**

\$20,500,000

ΑB

This project is for the construction of a 92,300 gross square foot Basketball Practice Facility to enhance the University's ability to attract top student athletes and enhance the UK Athletics basketball program. This facility will alleviate scheduling problems at Memorial Coliseum and will provide amenities in line with other NCAA basketball facilities in the country.

# **Extend Virginia Avenue**

\$4,000,000

 $\mathsf{RF}$ 

A three lane extension of Virginia Avenue from South Limestone Street to Rose Street with bike lanes and sidewalks. This project requires the demolition of two greenhouses and headhouse, plus a small biological sciences facility. Both will be relocated elsewhere on campus to make way for the roadway extension.

Total Budget

Source(s)

### Improve Spindletop Hall Facilities Cap. Renewal

\$2.450.000

RF

Capital renewal of Spindletop Mansion facilities. Project includes items such as refurbishment of the exterior, window replacement, renovation of the original swimming pool (filtration system, reline pool, reconstruct deck), elevator replacement, major tuckpointing of all masonry, lighting repairs, roof repairs, and miscellaneous capital renewal projects.

#### Install HVAC in Keeneland Hall

\$7,013,000

AΒ

Keeneland Hall was constructed in 1954 and contains 78,000 sq.ft. This request is to install central HVAC system.

# Install Scoreboards Memorial Col./ Hagan Stadium

\$1,500,000

RF

Replace scoreboards and install scoreboard/video components at Meorial Coliseum Gymnasium and Hagan Baseball Stadium.

#### **Lease Purchase Campus Infrastructure Upgrade**

\$3,500,000

RF

The campus communications infrastructure consists of cable plant, underground conduit systems and networking components. Periodically the infrastructure requires a major upgrade and expansion. This project is to replace, expand and install these components in order to meet the communications needs of faculty, students and staff.

#### **Lease Purchase Data Warehouse**

\$600,000

RF

The University has undertaken the creation of a data warehouse environment to facilitate reporting for the institution. Three years ago, hardware was purchased to begin implementation of a data warehouse environment. The data repository has been completed, but there are several other phases of the project that will require hardware to be replaced or upgraded. The data warehouse environment will enable the University to more efficiently and effectively access the data required to provide vital information for decision making.

# **Lease Purchase Enterprise Storage System**

\$1,200,000

RF

The requirement to use and have online access to data has exploded over the last few years. The University has installed an enterprise storage system to address the need. The system has proved to perform this function well, but the need grows and the system requires enhancement or replacement to keep up with the demand.

## **Lease Purchase Equipment Pool**

\$2,515,000

RF

This pool will allow for the lease purchase of equipment items costing less than \$100,000.

#### Lease Purchase ERP System, Phase II

\$20,000,000

RF

Phase I of the Enterprise Resource Planning System (ERP) replaced the core functionality of the University's administrative computing systems (FRS, HRS, and SIS). Phase I core modules are Financials, Materials Management, Human Resources/Payroll, and Campus Management.

This project, Lease Purchase ERP Phase II, will provide added functionality in modules for: Customer Relations Management, Plant Maintenance, Training and Event Management, and Travel and Expense Reimbursement. Document Imaging will be initiated in the Campus Management module. Student, Employee, and Manager self service and extensive workflow will be added to Phase I modules. The Business Warehouse and Faculty Effort Systems will be expanded. Several enhancements will be added to the Finance and Materials Management modules. The technical environment will be improved.

# **Lease Purchase Fire Suppression Upgrade**

\$1,000,000

RF

UK's major computing resources (supercomputer, mainframe, and 150 servers including both email systems and web services) are contained in approximately 7,400 sq. ft. of raised floor space. This area is protected by a Halon fire suppression system which should be upgraded to meet current EPA guidelines.

# Lease Purchase High Performance Research Comp.

\$6,500,000

RF

It will be necessary to upgrade or replace the current high performance research computer system within the next two years in order to maintain and enhance the University's research computing capability. This environment is changing rapidly and enhancing large scale research computing provides the high speed parallel and cluster computing facilities required to solve today's research problems. The modernization of the current computer facility is addressed in an additional request that will provide any additional power and cooling required.

# **Lease Purchase Large Scale Computing**

\$3,500,000

 $\mathsf{RF}$ 

It will be necessary to upgrade or replace the mainframe system within the next two years in order to provide the level of infrastructure required to maintain the University's core systems. The current computer facility will allow for the replacement of the mainframe.

### **Lease Purchase Network Security Hardware**

\$1,500,000

RF

The need to protect the University's network from the world of hackers, viruses, worms, etc. is an ever expanding requirement. The current environment of firewalls needs to be expanded to handle the larger bandwidths of the future. Devices and appliances need to be added to handle functions such as intrusion detection, intrusion prevention, bandwidth shaping, logging and interpretation of data, virus detection, encryption, certificate authorities, and other secure network logon environments. The current computer facility will be used for the network security hardware.

#### **Lease Purchase Tape Library**

\$500,000

RF

The current tape libraries are nearing the end of their useful life. Maintenance costs are escalating and technology has moved forward in the tape industry. New technologies will allow for faster tape operations and also provide the ability store more data per media. This will provide more efficient and cost affective data backup and storage facilities. The current computer facility will be used for the enhancement or replacement of the Enterprise Storage System.

# **Lease Purchase Telephone Switch Convergence**

\$12,000,000

RF

Replace the existing telephone system with the next generation to provide, voice, data and video for the Lexington campus and remote sites. This system will replace the old, limited system currently provided by our vendor.

#### Lease Purchase UK/UofL/Frankfort Research Network

\$6.000.000

RF

The project builds a private fiber network linking the data centers at the University of Kentucky, the University of Louisville and the Governor's Office of Technology. The network will provide backbone services for the Kentucky Post Secondary Education Network and as a direct link from the University of Kentucky to nationwide carriers located in Louisville.

#### Lease Purchase Unix Cluster

\$600,000

RF

The world of research computing requires a variety of systems to solve research problems. Certain problems work best on different configurations. A Linux cluster is one of those configurations. The University currently does not provide a production Linux cluster for the use of the research faculty. This will enhance their ability to solve research problems that are more suited to a cluster configuration. This cluster will provide an alternative for the shared memory system currently being used. The current computer facility will be used for the Linux cluster.

#### **Lease Purchase UPS System**

\$941,000

RF

Upgrading the uninterruptible power supply (UPS) systems for the computing operations provides clean, uninterrupted power for the University of Kentucky's 24 X 7 hour central computing resources (supercomputer, mainframe, 150 servers, etc.) The current UPS system does not provide redundancy, adequate backup time, or scalability. We will replace 100 KVA systems with dual 300 KVA system that have a redundant support structure.

Total Budget

Source(s)

### **Lease Purchase UPS Upgrade for Communications**

\$800.000

RF

All the telephone and data equipment are required to function 24 hours per day and 7 days a week. This equipment uses 48 volt DC source for power or 120 volts AC. In order to provide the service the system has to be up and running at all times. An uninterruptible power supply (UPS) system will provide the electricity that is needed to operate these systems.

### **Lease Purchase Video Switch Expansion**

\$250,000

RF

The project will expand the current ability to provide video switching services for video teleconferencing systems.

### **Paint Commonwealth Stadium Steel**

\$750,000

RF

Project to consist of painting all of the structural steel beams, both exposed and under bowl, of the Commonwealth Stadium super structure.

#### **Purchase Dentistry Patient Mgmt System-Phase II**

\$3.000.000

RF

This purchase is the Phase II for the Patient Management System for the College of Dentistry. Phase II will provide for electronic patient records and digital radiography.

## **Purchase High Res Trans Electron Microscope**

\$2,500,000

FF

This project will purchase a new high resolution transmission electron microscope for the Electron Microscope Center. The new instrument would replace the existing equipment, which would be sold or salvaged. The new instrument could occupy the space vacated by the existing equipment, but attention would have to be paid to adequate electrical grounding.

#### Renovate Blazer Hall Cafeteria

\$3,010,000

AB

This project will renovate approximately 9,900 square feet of dining space in Blazer Hall.

# **Renovate Carnahan House**

\$4,000,000

AB

This project will renovate the Carnahan House located in the Coldstream Research Campus.

#### Renovate Clinical Teaching Space in Nursing Bldg

\$1,220,000

RF

This project will renovate approximately 8,000 square feet of space in the Nursing Building. The renovated space will consist of clinical teaching areas that will be set-up as state-of-the-art intensive care units, including adult and child units, video assessment areas, and patient exam areas. These mock-up areas will be used to teach and evaluate students.

#### **Renovate Complex Commons**

\$10.400.000

AB

This project will renovate approximately 57,000 square feet of student support space in the Dorm Complex Central Facility (Complex Commons).

# Renovate Imaging Center in Ky Clinic

\$4,590,000

AB

This project will renovate approximately 13,000 square feet of space in the Ky Clinic. The renovation will be in the Imaging Center and will include two new CT Scanners, PET Scanner, an Open MRI, three Untrasound units, two Digital Radiology units, a BMD unit, and a contol center with film storage.

## Renovate Imaging Center, I

\$706,000

RF

This project is the renovation of space to provide radiology imaging services. The space will include CT scanners, MRI scanners, ultrasounds, and digital radiology units. Also, included are PAC workstations for interpreting images, a radiology information system, control center, dressing rooms, reception area, offices, and staff support space.

#### Renovate Imaging Center, II

\$1,257,000

RF

This project is the renovation of space to provide radiology imaging services. The space will include CT scanners, MRI scanners, ultrasounds, and digital radiology units. Also, included are PAC workstations for

Total Budget

Source(s)

interpreting images, a radiology information system, control center, dressing rooms, reception area, offices, and staff support.

### Renovate K-Lair Building

\$4,650,000

AB

This project will renovate approximately 7,200 nsf of dining space, offices and food service warehouse in the K-Lair Building.

# Renovate Lab for Coatings & Surface Inspection

\$8,000,000

RF

This project will renovate space in the Coldstream Center for the Center for Coatings & Surface Inspection. The space will include labs, offices, and support spaces.

#### **Renovate Memorial Coliseum**

\$4,731,000

RF

Renovate the existing gymnasium space at the Memorial Coliseum. Renovation to include cosmetic upgrades to interior wall and ceiling, upgrades to the seating bowl, and addition of rest room/concession areas, upgrade of gymnasium HVAC system.

#### Renovate Outpatient Clinic in Kentucky Clinic

\$2,930,000

AΒ

This project will renovate approximately 13,300 square feet of space in the Med Plaza.

# **Renovate Parking Structure #3**

\$2,500,000

AB

This project will renovate Parking Structure #3 (PS#3) and includes but is not limited to replacement of lights, light fixtures, repair of concrete deck, painting of steel structural members, and repair of the exterior skin of the facility.

#### **Renovate PSC Building**

\$750.000

RF

This project will renovate the Public Service Commission (PSC) Building. The building is approximately 4,960 gross square feet. The renovation will include upgrading the building to offices and computational/dry labs. Code deficiencies will also be addressed along with abatement of asbestos.

# **Renovate Soccer/Softball Facilities**

\$1,400,000

RF

This project will add additional seating, enclose existing seating areas with brick walls, enlarge/renovate press boxes at both Soccer and Softball, modify softball hitting area with enclosed batting cage, add lighting to soccer practice field.

# **Renovate Student Center Food Court**

\$1,643,000

AΒ

This project will renovate approximately 6,600 square feet of ding space in the Student Center.

#### **Renovate-Expand Boone Faculty Center**

\$6,200,000

OT-P

This project will renovate the original 19,561 square feet of the Boone Faculty Center on the Lexington Campus which was new in 1986 and construct an addition of approximately 3,300 square feet.

#### Replace Agr North primary electrical service

\$1,000,000

RF

Replace primary 4KV electrical service with a 12KV system. Includes replacement of six transformers and two distribution panels, disposal of one PCB transformer and one oil switch.

## **Replace Apartment Housing**

\$142,382,000

AB

To replace Cooperstown, Shawneetown, Commonwealth Village and Greg Page Apartments. Proposed project will construct approximately 613,000 sq.ft (gross) of new residential space and demolish old buildings. New construction will contain retail and residential services space. Net assignable sq.ft formula is 70% of gross sq.ft.

# **Replace Holmes Elevator**

\$740.000

AB

This project will allow for the replacement of the current elevator which is in disrepair and does not meet ADA requirements.

Total Budget

Source(s)

### **Replace Memorial Coliseum Playing Surface**

\$725.000

OT-P

Replace the existing (original) wood playing floor with an improved technology wood playing surface for the Memorial Coliseum Gymnasium. Project would remove the existing floor, level concrete subsurface, and install new wood floor with a modern cushioned wood floor.

### **Seal/Waterproof Commonwealth Stadium Concrete**

\$2,500,000

OT-P

This project will reseal the concrete stands of the original stadium, last completed in 1986.

#### Upgrade the Vivarium in Sanders Brown Building

\$6,720,000

RF/FF

This project will upgrade approximately 4,000 square feet of vivarium space in the Sanders Brown Building. The renovation will include reconfiguring of spaces and upgrades to finishes and building support systems.

# **Upgrade Transport Systems - Med Ctr Campus**

\$1,000,000

RF

Upgrading of the Medical Center elevators, conveyor and pneumatic tube systems.

#### 2008-2010

Acquire Land \$4,000,000 RF

This project will allow land acquisition in accordance with the University's Physical Development Plan. Authorization of this project will allow the University to purchase properties within the proposed boundaries of the University as such properties become available.

# **Construct Accessible Rooms - Blanding Complex**

\$522,000

AB

Blanding Complex was completed in 1967 and does not have ADA accessible dorm rooms. This project will renovate 1,000 square feet to create ADA accessible rooms.

# **Construct Ctr Disability Res & Training**

\$16,375,000

RF

This project provides for construction of a new building which will house a unique combination of programs. These programs have interlocking missions/goals, which increase the functional use of the new structure. All or parts of the following programs will be relocated to this building: University of Kentucky Cooperative Extension Services Agrability, Family Studies-Early Childhood and Interdisciplinary Human Development Institute.

#### **Construct New Housing**

\$50,859,000

AB

To request authorization to construct new housing. Total new construction will include parking and service facilities for approximately 400 additional beds.

### **Expand Cooling Plant #2**

\$5,200,000

AΒ

This project will expand the existing central chilled water plant to provide cooling for existing buildings and future buildings. The project includes addition of one 5,000 ton chiller and an additional cooling tower to be installed in the existing Cooling Plant #2. The project includes modifications of the main chilled water piping system in the building and the necessary connections to the existing plant piping. Exterior piping peripheral equipment modifications and control monitoring are necessary to provide primary/secondary central plant pumping.

### **Install HVAC in Boyd Hall**

\$3,350,000

AB

This project will install air conditioning in the Boyd residence hall and improve the indoor air quality.

# Renovate Cooperstown - Phase IV

\$1,690,000

AΒ

This project will renovate the apartments within a building in the Cooperstown Complex.

Total Budget

Source(s)

## Renovate Imaging Center, III

\$1,405,000

RF

This project is the renovation of space to provide radiology imaging services. The space will include CT scanners, MRI scanners, ultrasounds, and digital radiology units. Also, included are PAC workstations for interpreting images, a radiology information system, control center, dressing roooms, reception area, offices, and staff support.

# Renovate Imaging Center, IV

\$1,405,000

 $\mathsf{RF}$ 

This project is the renovation of space to provide radiology imaging services. The space will include CT scanners, MRI scanners, ultrasounds, and digital radiology units. Also, included are PAC workstations for interpreting images, a radiology information system, control center, dressing roooms, reception area, offices, and staff support.

# **Renovate Shively Sports Center**

\$2,000,000

RF

Project will renovate the interior of the existing Shively Sports Center, to enhance our weight training and medical training facilities for all of our Olympic Sports. Renovation also to provide a centralized equipment room, a receiving area, and enhanced laundry facilities. Renovation of locker facilities to be determined.

# Renovate Space in Med Plaza

\$1,250,000

AB

This project will renovate approximately 5,000 square feet of space in the Med Plaza Building.

## **Renovate Vivarium in Combs Building**

\$2,625,000

RF/FF

This project will renovate the vivarium in the Combs Building.

# **Renovate Willard Medical Sciences Building**

\$3,000,000

RF

This project will renovate approximately 10,000 nsf of the 3rd floor of the Med. Sciences Building. The work will include upgrades to labs, lab support spaces, corridors, restrooms, classrooms and offices. The work will include upgrades to the electrical, plumbing, communication systems, and replacement of casework. Other deficiencies will be addressed including emergency eyewash/showers and asbestos abatement. As the University aggressively strives to increase its stature nationally, it is necessary to upgrade, retrofit, and modify existing research facilities. This is necessary to accommodate new technologies and discoveries. In order to recruit nationally recognized researchers and to develop as a leader in research, the University must provide facilities that will ensure and enhance research activities. Many labs and lab support spaces on the 3rd floor have never been renovated since the facility was constructed.

#### **Upgrade Bldg Entrances Safety & Security**

\$1,000,000

RF

Upgrade building entrances for safety and security, to include such items as automated locking/unlocking features from a central controller/server, card access systems, video, motion detectors, and/or emergency telephones.

#### **Upgrade Electrical Emergency Power Systems**

\$2,500,000

RF

Replace building emergency generators with central emergency generators, including a distribution system from an expanded central emergency generator plant.

## **Upgrade Transport Systems II - Med Ctr Campus**

\$1,195,000

RF

Upgrading of the Medical Center elevators, conveyor and pneumatic tube systems.

#### 2010-2012

#### **Construct Accessible Rooms - Kirwan Complex**

\$578,000

AB

This project consists of renovating six rooms totalling 1,000 square feet in Kirwan Tower for accessibility for disabled. The residence halls located in south campus are not ADA accessible.

Total Budget

Source(s)

**Construct New Housing** 

\$58,326,000

AB

To request authorization to construct new housing. Total new construction will include parking and service faciltiies for approximately 400 additional beds.

**Expand Cooling Plant #2 Phase II** 

\$5,200,000

AΒ

Expansion of existing central chilled water plant to provide cooling for existing building and future buildings. Project includes replacing chillers and additional cooling tower to be purchased and installed in the existing Cooling Plant #2.

**Install HVAC in Holmes Hall** 

\$6.070.000

AB

Installation of a new HVAC system to update Holmes Hall which was constructed in 1956. This will allow the increased use of the facility on a year-round basis, especially for summer conferences and programs.

Install HVAC in Jewell Hall

\$2,425,000

AΒ

This project is to install a new HVAC system in the Jewell Residence Hall.

**Renovate Building Plumbing Fine Arts** 

\$650,000

RF

Replace antiquated restroom fixtures and upgrade restroom facilities. Existing fixtures are antiquated and too costly to repair.

Replace Ag. Science North Ductwork

\$1,330,000

RF

Replace internally lined ductwork to improve indoor air quality. The supply duct system has internally insulated ductwork. Over the years the insulation has (1) trapped particulate matter and (2) begun to breakdown and now is distributing these products into the labs and offices. The ductwork is to be replaced with externally insulated ductwork.

**Upgrade AHUs III - Med Ctr Campus** 

\$2,665,000

RF

Upgrade existing air handling units at the Medical Center complex with new units with new DDC controls.

**Upgrade Bldg Entrances Safety & Security** 

\$1,000,000

RF

Upgrade building entrances for safety and security, to include such items as automated locking/unlocking features from a central controller/server, card access systems, video, motion detectors, and/or emergency telephones.

**Upgrade Transport Systems III - Med Ctr Campus** 

\$1,335,000

RF

Upgrading of the Medical Center elevators, conveyor and pneumatic tube systems.

#### \*Notes

- Priority rankings were required to be assigned only to those projects proposed to be financed from the state General Fund (cash or bonds) in 2006-08; all other projects are listed in alphabetical order.
- Descriptions are as provided in the "Brief Description and Justification" field of the agency's capital plan submission.
- Sources: AB = Agency Bonds; FF = Federal Funds; RF = Restricted Funds; OT = Other Funds; TF = Road Fund